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FOREST AND RANGE EVALUATION PROGRAM

A Review of Forest Stewardship Plan Results and Strategies for the Cultural Heritage Resource Value

Lisa Levesque

"Bear" by Jim Hart, Haida, 2001. This pole represents the people who once occupied Tanu, an ancient Haida village wiped out by smallpox.

BRITISH COLUMBIA

MINISTRY OF FORESTS AND RANGE
FOREST AND RANGE EVALUATION PROGRAM

A Review of Forest Stewardship Plan Results and Strategies for the Cultural Heritage Resource Value

Lisa Levesque, MSc

FREP'S MISSION IS TO BE A WORLD LEADER IN RESOURCE STEWARDSHIP MONITORING AND EFFECTIVENESS EVALUATIONS; PROVIDING THE SCIENCE-BASED INFORMATION NEEDED FOR DECISION-MAKING AND CONTINUOUS IMPROVEMENT OF BRITISH COLUMBIA'S FOREST AND RANGE PRACTICES, POLICIES AND LEGISLATION

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Management of forest and range resources is a complex process that often involves the balancing of ecological, social, and economic considerations. This evaluation report represents one facet of this process. Based on monitoring data and analysis, the author offers the following recommendations to those who develop and implement forest and range management policy, plans, and practices.

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Prepared by
Lisa Levesque, MSc., B.C. Ministry of Forests and Range, Forest Practices Branch, Victoria, B.C.

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LIST OF ACRONYMS

BCTS	British Columbia Timber Sales
CFA	Community Forest Agreement
CHR	Cultural Heritage Resource
CSL	Community Salvage Licence
DBH	Diameter at Breast Height
FDP	Forest Development Plan
FDU	Forest Development Unit
FL	Renewable Forest Licence
FREP	Forest and Range Evaluation Program
FRPA	*Forest and Range Practices Act*
FSP	Forest Stewardship Plan
HCA	*Heritage Conservation Act*
LRMP	Land and Resource Management Plan
LUO	Land Use Objectives
MFR	Ministry of Forests and Range
MTCA	Ministry of Tourism, Culture and the Arts
NRFL	Non-replaceable Forest Licence
PFR	Preliminary Field Reconnaissance
SFMP	Sustainable Forest Management Plan
SRMP	Sustainable Resource Management Plan
SU	Standards Unit
TFL	Tree Farm Licence
TSA	Timber Supply Area
TSL	Timber Sales Licence

Forest District Codes

Coast Forest Region

DCK	Chilliwack
DCR	Campbell River
DNC	North Coast
DNI	North Island–Central Coast
DQC	Haida Gwaii
DSC	Sunshine Coast
DSI	South Island
DSQ	Squamish

Northern Interior Forest Region

DFN	Fort Nelson
DJA	Fort St. James
DKM	Kalum
DMK	Mackenzie
DND	Nadina
DPC	Peace
DPG	Prince George
DSS	Skeena Stikine
DVA	Vanderhoof

Southern Interior Forest Region

DAB	Arrow Boundary
DCC	Central Cariboo
DCH	Chilcotin
DCO	Columbia
DCS	Cascades
DHW	Headwaters
DKA	Kamloops
DKL	Kootenay Lake
DMH	100 Mile House
DOS	Okanagan Shuswap
DQU	Quesnel
DRM	Rocky Mountain

EXECUTIVE SUMMARY

Cultural heritage resources are one of 11 resource values included under the *Forest and Range Practices Act (FRPA)*. Under the results-based *FRPA* framework, forestry proponents must develop forest stewardship plans (FSPs) or woodlot licence plans that consist primarily of management results and (or) strategies for each *FRPA* resource value. These results and strategies must be consistent with all legal objectives set by government and all applicable requirements set out in the Forest Planning and Practices Regulation (FPPR).

The objective set by government for the cultural heritage resource (CHR) value is: "to conserve and where necessary, protect, First Nations cultural heritage resources that are (a) the focus of a traditional use by an aboriginal people that is of continuing importance to that people, and (b) not regulated under the *Heritage Conservation Act*" (FPPR Section 10).

Cultural heritage resources consist of a large and complex spectrum of heritage resources and cultural values, including both archaeological and traditional use sites, the connections between these sites, and a broader, more holistic concept of how First Nations people lived and continue to live on the land. First Nations cultural values are interwoven with other landscape values, such as ecology and geology, as well as language, stories, legends, and spirituality. Each First Nation in British Columbia has a unique interpretation of what cultural heritage values represent.

To provide a sense of how proponents are addressing the CHR value under *FRPA*, this project reviewed and analyzed a subset of approved FSP results and strategies. Note that additional tools and approaches may be being used by proponents in the "non-legal" realm to manage CHRs. These were not reviewed in this analysis, and future research will address this issue.

Project Overview

This project reviewed a subset of approved FSP results and strategies for the CHR value that have been developed across the province. The primary goals of this review were to:

- develop an understanding of how proponents are addressing the CHR value;
- compile examples of approved results and strategies to serve as a learning tool for forest managers;
- identify trends or similarities in the approved results and strategies; and
- provide some initial critical reflection on the possible implications of these findings.

Three research questions were used to guide this analysis:

1. Are results or strategies for specific CHRs (e.g., cedar, cultural trails, spiritual sites) being developed and approved in FSPs? Why or why not?
2. How frequently do FSPs contain information-sharing strategies? What common elements do these information-sharing results or strategies contain?
3. What other notable trends or similarities are evident in approved results and (or) strategies for the CHR value?

Cultural heritage resource results and strategies were extracted verbatim from approximately 110 FSPs that had been approved and entered into the electronic FSP tracking system as of January 15, 2008. This sample represents approximately 58% of all currently approved FSPs in British Columbia, and includes FSPs from 27 of 29 Ministry of Forests and Range forest districts.

Resource Tenures and Engineering Branch personnel compiled all CHR results and strategies for this analysis. A content analysis was completed to identify trends among all results and strategies. A chi-square statistical analysis was used to identify significant differences between trends observed among First Nations owned or affiliated companies, and those with no apparent First Nations affiliation. Differences may indicate that CHR management priorities exist among First Nations tenure holders that non-aboriginal tenure holders should consider.

Results

A number of example FSP results and strategies are presented verbatim in the report for information purposes, without bias and (or) support for their content or quality. These include management results or strategies for: (a) specific CHRs (i.e., cedar, culturally modified trees, birch, cultural plants, rock art and pit houses); (b) information-sharing; (c) the completion of archeological or CHR field assessments; (d) the identification of First Nations affected by a given FSP; (e) access management; (f) herbicide/pesticide management in cultural use areas; and (g) the incorporation of First Nations land use plans in forest management planning.

Content and statistical analyses revealed the following trends:

- Thirty-four percent of the forest stewardship plans under review identified results and strategies for specific CHRs: cedar (22% of all FSPs, or 69% of all FSPs on the Coast), culturally modified trees (10%), birch ecosystems (3%), cultural plants (4%), rock art and pit houses (1%).
- Companies owned by, or affiliated with, coastal First Nations were significantly more likely to include cedar-related strategies than non-aboriginal companies: all First Nations companies (100%) addressed cedar management directly in their FSPs compared to 59% of companies not affiliated with First Nations.
- Approximately half of the plans (49%) were committed to the completion of either archaeological assessments (31%) or "cultural heritage resource" assessments (18%).
- Companies owned by, or affiliated with, First Nations were more likely to include commitments to complete field assessments (archaeological or CHR assessments) compared to companies with no known First Nations affiliation.
- A small proportion of plans (10, or 9%) made specific commitments to complete culturally modified tree surveys.
- A few licence holders (3, or 3%) made specific commitments to provide CHR-related training or information to field staff or contractors operating within the plan area.
- Where "cultural heritage resource assessments" were mentioned, plan preparers did not always include a definition for this term or an explanation of what such assessments would entail; therefore, an opportunity may exist to develop standards or guidelines for these assessments based on work currently under way by First Nations.
- Defined information-sharing strategies were included in 53% of the reviewed plans. The level of detail provided in these strategies varied considerably among plans, although some common elements included:
  - a clear timeline for communication outlining the frequency of communication;
  - a commitment to provide feedback on concerns raised;
  - a commitment to conduct face-to-face meetings to share information;
  - a commitment to provide site-specific information; or
  - a commitment to maintain confidentiality of sensitive information.
- Ten percent of plans contained "explicit" information-sharing strategies (i.e., strategies that included four or more of the elements described above), 43% were moderately to well defined (containing two or three elements).
- Thirteen percent of plans identified all First Nations affected in the plan area or specific forest development unit within the operating area. This approach seems to be used to provide added transparency and clarity for First Nations and others reviewing the plan.
- A few unique examples of strategies designed to address specific First Nations concerns included: restricting or improving access management; effects of pesticide and herbicide application in high-use areas; and the use and valuation of First Nations land use plans in various stages of planning.

Once again, note that while this project examined the legally enforceable commitments contained in FSPs, additional tools and approaches are reportedly being used by proponents to manage CHRs in the non-legal realm.

Recommendations

First Nations, government, industry, and professional associations should work together to implement the following recommendations. An Action Plan, published in conjunction with this report, details specific steps that will be taken to address each recommendation.

Recommendation 1:

Document the prevalence, content, and effectiveness of strategies or protocols developed by proponents through various "non-legal" mechanisms for CHR management. These mechanisms may include (but are not limited to):

- FSP supporting documents
- Information-sharing agreements or protocols
- Cultural resource management agreements (e.g., cultural cedar management strategies)
- Sustainable forest management plans (or equivalent plans developed for sustainable forest certification purposes)

Recommendation 2:

Assess the effectiveness of information-sharing strategies and protocols.

Recommendation 3:

Develop guidance for professional due diligence in the completion of "pre-harvest cultural heritage resource assessments." This guidance should identify:

- all appropriate information sources and how to access them (respecting any confidentiality concerns);
- the types of sites, features, and values to record for a given area or region; and
- effective methods of collecting and managing CHR information.

Recommendation 4:

Develop a FREP Extension Note or FREP Bulletin identifying high-priority CHR features or values (at local, regional, and provincial scales) that professionals should consider when developing results and strategies in FSPs, or for other planning processes. This document will include specific examples from existing FSPs, strategic plans (e.g., land and resource management plans), local knowledge, and results from 2008 pilot FREP field monitoring.

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1.0 INTRODUCTION

The Forest and Range Evaluation Program (FREP) is a resource stewardship initiative established by the B.C. Ministry of Forests and Range (MFR) to monitor and evaluate the status of British Columbia's forest and range resources. Established as a foundation of the *Forest and Range Practices Act (FRPA)* in 2003, FREP aims to:

- Assess whether forest and range practices under *FRPA* are effectively maintaining the 11 defined *FRPA* resource values[1]; and
- Determine whether these practices, and the legislation itself, meet the government's broader commitment to sustainable resource management.

Under the results-based *FRPA* framework, forestry proponents (excluding minor tenure holders) must develop forest stewardship plans (FSPs) or woodlot licence plans that consist primarily of management results and (or) strategies for each *FRPA* resource value. These results and strategies must be consistent with:

- objectives set by government and all applicable requirements set out in the Forest Planning and Practices Regulation (FPPR) under *FRPA*; and
- land use objectives established through the Land Use Objectives Regulation under the *Land Act*.[2]

The objective set by government for the cultural heritage resource (CHR) value is: "to conserve and where necessary, protect, First Nations cultural heritage resources that are (a) the focus of a traditional use by an aboriginal people that is of continuing importance to that people, and (b) not regulated under the *Heritage Conservation Act*."[3] The FPPR also outlines a number of "factors" that must be considered when specifying a result or strategy for the CHR value (see Appendix 1).[4]

The term "cultural heritage resources" applies to a large and complex spectrum of heritage resources and cultural values, including both archaeological and traditional use sites (B.C. Ministry of Tourism, Sports and the Arts 2007). It includes defined sites, features, or places, as well as the connections between these sites, and a broader, more holistic concept of how First Nations people lived, and continue to live on the land. Cultural heritage values are interwoven with other landscape values, such as ecology and geology, as well as language, stories, legends, and spirituality (B.C. Ministry of Sustainable Resource Management 2004). Each First Nation in British Columbia has a unique interpretation of what cultural heritage and values represent.

This project reviewed a subset of the approved FSP results and strategies[5] for the CHR value that have been developed across the province. The primary goals of this review were to:

- Develop a sense of how proponents are addressing this complex value;
- Compile examples of approved results and strategies for the CHR value to serve as a learning tool for forest managers;
- Identify trends or similarities in these approved results or strategies; and
- Provide some initial critical reflection on the possible implications of these findings for future discussion among professionals.

This review is important for a number of reasons. First, while *FRPA* includes practice requirements for several resource values (see FPPR, Part 4, Sections 35–70[6]), none currently exist for the CHR value. Therefore, the information in this report could provide a valuable learning tool for forest managers involved in developing, reviewing, or approving CHR results and strategies.

Next, the FSP is the primary document requiring review and comment by First Nations. It should provide sufficient information for a First Nation to understand, critically evaluate, and respond to a proponent's proposed strategic approach to managing CHRs (and other resource values) within their traditional territories (as opposed to more site-specific management decisions addressed at later stages of the planning process).

1 The 11 *FRPA* resource values include: biodiversity, cultural heritage resources, fish/riparian, forage and associated plant communities, recreation, resource features, soils, timber, visual quality, water, and wildlife.

2 The *FRPA* framework enables the establishment of land use objectives to provide for an appropriate balance of social, economic, and environmental benefits that may not otherwise be achieved by applying the *FRPA* model without these objectives.

3 Forest and Range Practices Regulation (B.C. Reg. 14/2004), Section 10. See: http://www.for.gov.bc.ca/tasb/legsregs/frpa/frparegs/forplanprac/fppr.htm#section10

4 Forest and Range Practices Regulation (B.C. Reg. 14/2004), Schedule 1. See: http://www.for.gov.bc.ca/tasb/legsregs/frpa/frparegs/forplanprac/fppr.htm#sch1

5 No woodlot license plans have been considered in this analysis.

6 Forest and Range Practices Regulation (B.C. Reg. 14/2004), Part 4, Sections 35–70. See: http://www.for.gov.bc.ca/tasb/legsregs/frpa/frparegs/forplanprac/fppr.htm#part4

Finally, approved FSPs contain the only legally enforceable and non-discretionary commitments in the form of results or strategies for managing CHRs applicable over a given proponent's operating area. Proponents may develop strategies for managing CHRs through other mechanisms that are applicable in the non-legal realm, and subject to the principles of professional reliance (e.g., cedar management strategies, Sustainable Forest Management Plans [SFMPs]). It is important for decision makers to understand what approaches are being used in both the legal and non-legal realms, and to critically examine the implications of trends emerging in the legal realm because of the added level of protection afforded by these commitments. Future analyses by the FREP CHR team will include consideration of results and strategies for CHR values developed through non-legal mechanisms, as well as those developed for other resource values (e.g., wildlife resource values) that could influence cultural values directly or indirectly (e.g., ungulate/wildlife management strategies).

This report presents one critical piece of a much larger puzzle. Ultimately, FREP is concerned with determining whether resources are being managed sustainably on the land base. In the absence of field data for evaluating the outcomes of the various results or strategies highlighted in this report, it is difficult to conclude that any one approach is superior over another. Linking outcomes on the ground with different management strategies (legal or non-legal) will provide important information for forestry professionals. In the future, we will be able to provide informed guidance for designing effective CHR results and strategies and to reflect critically on the effectiveness of current legislation pertaining to CHR values.

1.1 *Definitions, Policies, and the Regulatory Framework*

The *Forest Act* defines a CHR as: "an object, a site or the location of a traditional societal practice that is of historical, cultural or archaeological significance to British Columbia, a community or an Aboriginal people."[7] Archaeological resources consist of the physical remains of human activity, and include burial sites and aboriginal rock art (B.C. Ministry of Tourism, Sport and the Arts 2007). The British Columbia *Heritage Conservation Act* (*HCA*) provides automatic protection for all archaeological resources predating 1846, as well as all rock art and burial sites. While the *HCA* prohibits the destruction, excavation, or alteration of pre-1846 archaeological resources without a permit, the *FRPA* and FPPR provide additional legal direction to forestry professionals regarding the conservation or protection of CHRs that are the focus of a traditional use by an aboriginal people, and *that are of continuing importance to that people* (Appendix 1). Cultural heritage resources can include both pre- and post-1846 sites or features.

On the Coast, legal objectives were established through the *South Central Coast Order* (B.C. Ministry of Agriculture and Lands 2007c) and *Central and North Coast Order* (B.C. Ministry of Agriculture and Lands 2007a) ("the Orders"), providing additional legal recognition of First Nations' cultural values (Appendix 2). The Orders act as important tools to enable the implementation of ecosystem-based management, establish legal objectives for archaeological or cultural resources that are not explicitly regulated under the *HCA*, and address specific concerns of south, central, and north coast First Nations. The Orders include objectives for the management First Nations' traditional heritage features, culturally modified trees, monumental cedar, and stand-level retention of western redcedar and yellow-cedar (see Appendix 2). All FSP applicants within the south, north, and central coast boundaries are required to write results and strategies that are consistent with these Orders.

For the remainder of the province, legal direction on what specifically constitutes a CHR is limited. Given the diversity in perspectives and cultures among First Nations in British Columbia, this ambiguity arguably affords flexibility to define the term in a local or regional context to better meet the needs of local First Nations (in either the legal or non-legal realm). Where relationships are strong, and communication between parties regarding CHRs is constructive, this flexibility may be beneficial and could potentially improve professionals' ability to manage CHR values more adaptively and effectively.

7 RSBC 1996, Chapter 157. *Forest Act*, Section 1. See: http://www.for.gov.bc.ca/tasb/legslegs/forest/foract/part1.htm#section1

Conversely, many barriers can inhibit the dialogue necessary to adequately define local CHRs of concern and to identify mutually acceptable management strategies. These may include (but are not limited to):

- poor working relationships or lack of trust between parties;
- limited capacity of local First Nations to engage with proponents and government;
- perceived conflicts with ongoing treaty negotiations;
- unwillingness to share sensitive information outside of the community; or
- misunderstandings stemming from information and interpretive gaps between traditional knowledge or science and Western science paradigms.

Where these barriers exist, local CHR management priorities may be ill-defined or unknown. In these situations, the ambiguity in current legislation has considerable potential to result in negative impacts to CHRs.

1.2 *First Nations Input into Forest Stewardship Plans*

Under the Forest Practices Code, Forest Development Plans (FDPs) guided forestry activities on the land base, and included all site-level operational information (i.e., planned location of cutblocks and roads) for a given operating area. The FDP was typically the main mechanism for information exchange with First Nations regarding forestry activities occurring within their asserted traditional territories.

Under the *FRPA* model, results and strategies are developed by proponents and submitted to the MFR for approval in an FSP or woodlot licence plan. The FSP has effectively replaced the FDP as the primary planning document for a given operating area, but does not include site-level information related to harvesting or road-building activities. Instead, the focus is on attempting to identify and manage land and resource values at a broader, more strategic scale. Once approved by a statutory decision maker (i.e., MFR District Manager), the FSP is legally binding and applicable over the operating area defined by the plan.

The FSP is accompanied by supporting document(s) that contain some combination of:

- information outlining how the result or strategy is consistent with a given *FRPA* objective (for consideration by the decision maker);
- a summary of, and a proponent's response to, all written comments received from First Nations (*required*); and (or)
- additional non-legally binding management strategies for the operating area in question.

An FSP approval by a statutory or delegated decision maker signifies that the legal tests of *FRPA* have been met (B.C. Ministry of Forests 2005).

Prior to approval, the FSP acts as a key initial mechanism for exchanging information with First Nations, government agencies, and the public about proposed forestry activities in a proponent's operating area. Additional information (e.g., maps showing site-specific information regarding proposed roads and cutblocks, background information about *FRPA*) is sometimes shared with First Nations throughout the planning process.

The Crown has delegated some procedural aspects of their consultation obligations to proponents seeking a particular approval by requiring them to undertake review and comment with First Nations in relation to their FSP (B.C. Ministry of Forests 2005). As such, a proponent is required to make "reasonable efforts" to meet with First Nations affected by their FSP to review the plan and solicit comments before plan finalization.[8] Although discussed in the *Administrative Guide for Forest Stewardship Plans* (B.C. Ministry of Forests and Range 2006a) and *FRPA Administration Bulletin No. 1* (B.C. Ministry of Forests 2005), what constitutes a "reasonable effort" is not explicitly defined, and is ultimately determined by delegated decision makers based on the best information available to them in any given set of circumstances.

Under the results-based *FRPA* regime, effective review and comment during FSP development was intended to facilitate and decrease the need for future information-sharing or consultation with First Nations on site-specific decisions (i.e., cutting permit or road permit applications) by addressing CHR management at a more strategic level.

Many First Nations have expressed some discomfort with the model or an inability to comment effectively on FSPs for various reasons including (but not limited to):

- the lack of operational detail contained in FSPs;
- difficulty in understanding the legal terminology frequently contained in FSPs;

8 As outlined in FPPR Section 21–22.

- a lack of stable human resource, financial, or institutional capacity within the Band or Nation;
- a lack of the information or resources necessary to complete strategic land use planning internally (i.e., within the Band or Nation); or
- political opposition to the *FRPA* at the Band, Nation, or Tribal Council level.

In response to these concerns, some proponents have agreed to continue sharing site-level planning information with First Nations (i.e., location of proposed roads and cutblocks) as it becomes available. This may occur before FSP approval or on a routine basis throughout the planning process after an FSP has been approved.

In light of the ecosystem-based management and government-to-government processes on the Coast, and the establishment of the First Nations Co-ordinated Consultation Teams across the province, First Nations' role in resource management planning and decision making in British Columbia is undoubtedly evolving. These developments will almost certainly affect planning processes under *FRPA*. We trust that the information provided here remains relevant within this evolving regulatory context.

2.0 RESEARCH QUESTIONS

First Nations' cultural values are intrinsically linked to most, if not all, forest and range values. However, given that the CHR value is discretely identified under *FRPA*, we have chosen to focus only on the FSP results or strategies developed for the CHR value in this report.

Through a number of information-sharing opportunities, including local and provincial workshops hosted by FREP (attended by First Nations, proponents, and MFR staff), and formal interviews completed as part of a 2007/2008 FREP pilot project, the following CHR management/monitoring priorities were identified.

- Ensuring a sufficient abundance and quality of culturally important plant species used for various purposes: food, medicinal, spiritual, and materials (e.g., plants used for fibre, building).
- Managing access to cultural use areas - both facilitating access to the area for First Nations community members (e.g., important plant gathering sites, spiritual sites), and controlling or restricting access by the public to these sites.
- Protecting ceremonial, traditional use, and spiritual sites (e.g., pit houses, burial sites, bathing pools, cabins, etc.).
- Managing cedar for continued cultural use (e.g., monumental cedar, cedar bark stripping, carving, etc.).
- Maintaining quality and quantity of fish and wildlife habitat.
- Conserving cultural trails and trail networks.

Many participants in these sessions also identified the significant value of establishing information-sharing protocols between First Nations and other parties (i.e., government and industry).

Undoubtedly, other priorities have not been identified here; however, these served as a useful starting point, and helped to shape three guiding research questions for this report.

1. Are results or strategies for specific CHRs (e.g., cedar, cultural trails, spiritual sites) being developed and approved in FSPs? Why or why not? (Section 4.1)
2. How frequently do FSPs contain information-sharing strategies? What common elements do these information-sharing results or strategies contain? (Section 4.2)
3. What other notable trends or similarities are evident in approved results and (or) strategies for the cultural heritage resource value? (Sections 4.3 and 4.4)

3.0 METHODS

Cultural heritage resource results and strategies were extracted verbatim from approximately 110 FSPs that had been approved and entered into the electronic FSP tracking system as of January 15, 2008. This sample represents approximately 58% of all currently approved FSPs in British Columbia.[9]

All CHR results and strategies were compiled in a summary document by staff at the Resource Tenures and Engineering Branch. A content analysis was completed to identify trends. A chi-square statistical analysis was then used to identify significant differences between trends observed among First Nations owned or affiliated companies, and those with no apparent First Nations affiliation. Differences could indicate that CHR management priorities exist among First Nations tenure holders that non-aboriginal tenure holders should consider.

9 As of August 5, 2008, approximately 190 FSPs had been approved and entered into the tracking system.

3.1 *Description of the Sample*

The random sample used for this project included approved FSPs from 27 of 29 MFR forest districts, excluding the Fort Nelson and Skeena Stikine districts which had no approved FSPs in the electronic tracking system when the sample was compiled (Table 1). The greatest number of FSPs reviewed for any one district was 11 (in the Okanagan-Shuswap and South Island forest districts).

Forest stewardship plans can be submitted by single or multiple licensees, can vary considerably in the area affected by the plan, and can cross multiple district boundaries. Ninety-two of the 110 FSPs reviewed (84%) were prepared and submitted by single proponents, and 18 (16%) were prepared and submitted by multiple proponents. Many types of licences are represented:

- Tree Farm Licence
- Timber Sales Licence
- Non-replaceable Forest Licence
- Renewable Forest Licence
- Community Forest Agreement
- Community Salvage Licence

Table 1. *Number of FSPs reviewed by MFR region and district. (Some FSPs affect multiple districts, so the numbers in the table add up to 126, not 110).*

Northern Interior Region		Southern Interior Region		Coast Forest Region	
Fort St. James	8	Arrow Boundary	7	Chilliwack	6
Kalum	1	Central Cariboo	4	Campbell River	4
Mackenzie	1	Chilcotin	3	North Coast	2
Nadina	6	Columbia	7	North Island–Central Coast	8
Peace	1	Cascades	2	Haida Gwaii	1
Prince George	7	Headwaters	9	Sunshine Coast	6
Vanderhoof	3	Kamloops	3	South Island	11
		Kootenay Lake	1	Squamish	2
		100 Mile House	2		
		Okanagan Shuswap	11		
		Quesnel	7		
		Rocky Mountain	3		
Total # of FSPs reviewed[a]	**27**		**59**		**40**

a Several First Nations owned, operated, or affiliated companies are represented in the sample (19 FSPs, or 17% of the total) (Appendix 3, Table 2). For a complete list of the FSPs considered in this study, see Appendix 3.

4.0 RESULTS

Section 4.1 addresses the first research question, outlining trends as well as examples of results or strategies that have been developed for specific CHRs. Section 4.2 addresses the second research question, exploring the inclusion of information-sharing results or strategies in FSPs, and highlighting both the frequency of this approach and the key elements contained in these strategies.

Two additional and unanticipated trends were revealed as a result of this review (Section 4.3):

1. the inclusion of commitments to completing "assessments" to identify previously unknown CHRs or archaeological resources (Section 4.3.1); and
2. the listing or identification of all First Nations affected by the FSP or to which the plan applies (Section 4.3.2).

A few FSPs contained unique results and strategies designed to address more general, but commonly identified, concerns among First Nations (Section 4.4): access management, herbicide and pesticide management in traditional use areas, and the incorporation of First Nations land use plans in forest management planning.

Finally, we examined whether any notable differences existed between the approaches used by First Nations owned, operated, or affiliated companies and companies with no apparent First Nations affiliation (Section 4.5). A clear difference in trend could indicate that issues of importance to First Nations exist that non-aboriginal tenure holders should consider. Innovative approaches could serve as a future learning tool for other FSP holders when attempting to address the CHR value in FSPs.

4.1 *Strategies for Specific Cultural Heritage Resources*

Given the cultural diversity of First Nations across the province, and the previously noted flexibility in *FRPA* to interpret the definition of "cultural heritage resources" to better meet local First Nations' needs, we were interested in how frequently approved FSPs contained definitions or results and strategies for specific CHRs.

4.1.1 Trends

Approximately one-third (34%, or 37) of the FSPs reviewed contained results or strategies for specific CHRs. The majority of these (23%, or 25) explicitly addressed only one CHR, while the rest identified two or more. See Appendix 3 for a complete list of FSPs reviewed for this report.

The CHRs that are explicitly identified and addressed in results or strategies include:

- cedar (western redcedar [*Thuja plicata*] and yellow-cedar[10] [*Chamaecyparis nootkatensis*]),
- culturally modified trees,
- cultural plants,
- birch (*Betula* spp.), and
- rock art and pit houses.

Cedar

Cedar is and has been integral to the cultures of coastal First Nations peoples for millennia, and was also used by some interior First Nations. Western redcedar and yellow-cedar share a similar ecological range, occurring predominantly along the Coast with some occurrence in the southeast Interior. Given the species' limited ecological range, only those FSPs that affect districts in the Coast Forest Region, and a few districts in the Interior, would reasonably include strategies for this resource value. For this reason, we focussed the analysis on FSPs affecting districts in the Coast Forest Region only (35).

Strategies related to cedar were found in 69% of the FSPs reviewed from the Coast Forest Region (24 of 35) (Table 2).

10 Yellow-cedar is often referred to as "cypress" in FSPs.

Table 2. *Cedar-related strategies in the Coast Forest Region (subsample = 35 FSPs) by MFR forest district*

Reviewed FSPs affecting a single forest district

District	No. of FSPs	No. of FSPs with cedar strategies	% of total with cedar strategies
Chilliwack	7	3	43
Campbell River	3	3	100
North Coast	2	2	100
North Island – Central Coast	6	5	83
Haida Gwaii	–	–	–
Sunshine Coast	4	2	50
South Island	10	6	60
Squamish	–	–	–

Reviewed FSPs affecting multiple forest districts

Districts	No. of FSPs	Cedar management strategy
Squamish, Sunshine Coast, Campbell River, Haida Gwaii, South Island, and North Island/Central Coast	1	Yes
Campbell River and North Island/Central Coast	1	Yes
Sunshine Coast and Squamish	1	Yes

	No. of FSPs	No. of FSPs with cedar strategies	% of total with cedar strategies
TOTALS	**35**	**24**	**69**

Generally, cedar is mentioned in the context of its use for cultural purposes, including monumental art. The actual language used in individual results or strategies varies among FSPs, but six main strategies or approaches were evident.

1. Planting or promoting natural regeneration of western redcedar after harvest.
2. Planting western redcedar and yellow-cedar in *ecologically suitable areas*, in accordance with the stocking standards specified in the FSP.
3. Recruiting western redcedar for bark-stripping opportunities in the future in regenerated stands.
4. Providing assistance to the First Nation in locating western redcedar and yellow-cedar that may be suitable for cultural requirements.
5. Assisting a First Nation in identifying western redcedar suitable for monumental art, should the First Nation choose to harvest the trees themselves.
6. Providing First Nations with the most recent publicly available copy of the western redcedar inventory.

Specific examples of strategies addressing cedar include[11]:

Example cedar strategy #1:

To assist in addressing short-term supply of cedar for traditional uses, the licensee will, on request by First Nations, provide direction to information on the location of cedar within FDUs that may exist as a stand component within riparian management zones, Old Growth Management Areas, and Wildlife Tree Patches to reduce the requirement to remove cedar from licensee cut-blocks. First Nations will be directed to the Ministry of Forests and Range to apply for applicable cutting permits.

As cedar is a traditional use material of the First Nations, the licensee will, in assistance of a long-term supply strategy for cedar, manage cedar in accordance with approved stocking standards as a species component on ecologically suitable sites to ensure the abundance of the species.

11 All examples of results and strategies contained in this report have been taken verbatim from reviewed FSPs. They are presented here for information only, without bias and (or) support for their content or quality.

Example cedar strategy #2:

Specific to western red cedar used for monumental art, the FSP Holder(s) will:

a) *Plant or promote natural regeneration of western red cedar as a component of future stands, where ecologically suited, on areas referred to in FRPA S.29(1) and in accordance with the stocking standards in Appendix 1 of this FSP;*

b) *At the request of a First Nation, and where the requested western red cedar is for monumental art, and consistent with the historical extent of the quantity of western red cedar used for monumental art within the area of the FSP:*

- ***i)*** *make western red cedar for monumental art available through operational sources consistent with planned operations;*
- ***ii)*** *Assist a First Nation in identifying western red cedar trees suitable for monumental art, should the First Nation choose to harvest the trees themselves.*

Example cedar strategy #3:

[Company X] will recruit western red cedar for bark-stripping opportunities in the future in regenerated stands on ecological site series CWHvh2, site series 01,03,04,05, and 06. See Stocking Standards Section 4.2.11 for complete result.

Example cedar strategy #4:

[Company X] recognizes that mature Cedar and Cypress located within the identified FDUs are relevant cultural heritage resources to the applicable First Nations and will ensure that

(1) *these First Nations are provided with assistance in locating cedar and cypress which may be suitable for cultural requirements, and*

(2) *cedar and cypress, where ecologically suited, will be planted on areas referred to in section 29 (1) of the FRPA in accordance with the stocking standards specified in this FSP.*

Example cedar strategy #5:

In addition to subsections [Y], [company X] recognizes that mature Western red cedar and Cypress located within the identified FDUs are special cultural heritage resources to the applicable First Nation and the [company] will ensure that:

(1) *these First Nations are provided with a copy of the most recent publicly available western red cedar inventory for the applicable area completed by the [X Forest District] as well as any updates to that inventory, and*

(2) *western red cedar and cypress, where ecologically suited, will be planted on areas referred to in section 29(1) of the Act in accordance with the stocking standards specified in this FSP, and*

(3) *where requested by a First Nation, [company] will assist in developing a strategy for and in the identification of western red cedar or cypress for monumental art within their traditional territory.*

Example cedar strategy #6:

[Company] will take the following steps to ensure that opportunities for traditional and cultural use of redcedar and yellow cedar will be maintained in the FSP area:

1. *[Company]'s operations will be consistent with the relevant Watershed Plans, which establish reserves to conserve representative old-growth, interior old growth, hydroriparian forests, and ecosystem representation by site series and leading species/ advanced successional stage (201 to 400 years and 401 to 600 years). Forest management that is consistent with official Watershed Plans will ensure that a minimum of 40% of old-growth (age class 8 and 9) forests within each watershed planning unit is protected.*
2. *[Company] will apply variable retention silviculture systems to all cutblocks in the FSP area. This will ensure protection of representative samples of original forest in the harvestable areas.*

3. *Western redcedar (Cw) and yellow cedar (Yc) will be planted on ecologically appropriate sites to ensure an ongoing future supply of these species in the harvested areas of [the FSP area]. On Standards Units (SUs) where*

   a) *a regeneration obligation exists after harvesting is complete,*

   b) *Cw and/or Yc are preferred species in the Stocking Standards for that SU (Appendix 1), and*

   c) *Cw and/or Yc made up at least 30% of the original stand by basal area or volume*

   [Company] will plant any openings in the SU with Cw and/or Yc to a density not less than 50% of the target well spaced stocking for that SU.

4. *The FSP area contains second growth forests that originally contained a significant cedar component that were then subsequently reforested to other species (including "off-site" Douglas fir). When harvesting is proposed in these second growth forests, Site Plans will include steps to help restore the cedar component to these sites.*

5. *[Company] will assist local First Nations in identifying and accessing cedar and yellow cedar trees suitable for use for cultural purposes. This includes providing suitable trees or logs from permit areas held by [Company], and providing assistance, where requested, in applying for Free Use Permits that can provide access to trees for cultural uses.*

Note that some licensees have chosen to establish stand-alone cedar management plans, agreements, or protocols with First Nations outside of the FSP. This information has not been compiled for this report, but will be considered in future analyses.

Culturally Modified Trees

The *Culturally Modified Trees of British Columbia* handbook defines a culturally modified tree (CMT) as *"a tree that has been altered by aboriginal people as part of their traditional use of the forest"* (B.C. Ministry of Small Business, Tourism and Culture 2001:1). The definition further states that, *"there are no reasons why the term 'CMT' could not be applied to a tree altered by non-aboriginal people. However, the term is commonly used to refer to trees modified by native people in the course of traditional tree utilization"* (B.C. Ministry of Small Business, Tourism and Culture 2001:1).

The management of CMTs that pre-date 1846 is regulated under the *HCA* and post-1846 CMTs are managed under *FRPA*. Most First Nations consider all CMTs to be important CHRs, as well as important evidence of past and current use relevant to ongoing rights and title cases. While pre-1846 CMTs are protected under the *HCA*, management strategies for post-1846 CMTs vary considerably and include (but are not limited to): establishing wildlife tree retention areas[12] around areas where CMTs occur; buffering individual or stands of CMTs; stubbing CMTs above visible scars; or dating the tree(s) before harvesting.

Strategies for the management of CMTs were included in 11 (10%) of the FSPs sampled. Once again, the various approaches use different language, but generally include one or both of the following commitments:

- To conduct a CMT survey (if the CHR consists only of CMTs) and to share the results of the survey and the management recommendations to the affected First Nation.
- To document the location and age of the CMT.

Specific examples of strategies for managing culturally modified trees include:

Example CMT strategy #1:

If the cultural heritage resource consists of only culturally modified trees (CMTs), then:

a) *the holder of this FSP will conduct a CMT survey; and*

b) *the survey results and the [company's] CMT management recommendations will be provided to affected First Nations.*

12 Wildlife Tree Retention Areas provide an equivalent function to what were previously called "Wildlife Tree Patches" under the Forest Practices Code.

Example CMT strategy #2:

All employees and contractors of [company] working in the field will be provided with information on culturally modified trees and other cultural heritage resources via the [company]'s Standard Operating Procedures, and the [company] harvest pre-work.

Example CMT strategy #3:

Should CMTs or CHRs be noted in CHR assessments, location and age shall be recorded.

As with cedar-related strategies, strategies for CMT management may be outlined in separate documents that were not reviewed for this analysis.

Cultural Plants

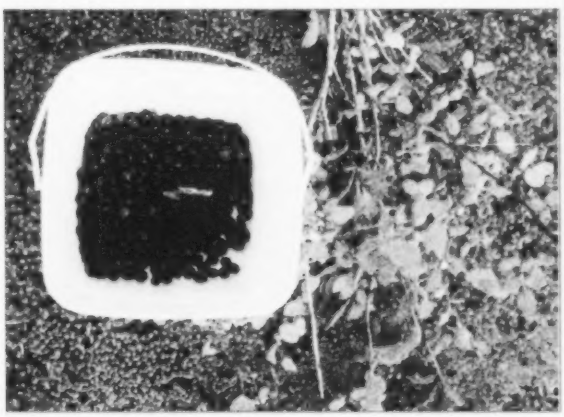


Photo 1. *Huckleberry (Vaccinium membranaceum) harvesting Photo credit: Wendy Cocksedge, Centre for Non-Timber Resources.*

Plants (including trees and understorey plants) have been used for cultural purposes by First Nations peoples for millennia. Uses include sustenance, medicines, spiritual uses, and materials (e.g., fibres and building materials). The continued use of plants for cultural purposes is of critical concern to most, if not all, First Nations.

This important value has been formally recognized at the strategic land use planning level in some Land and Resource Management Plans (LRMPs) (e.g., Morice Land and Resource Management Plan; B.C. Ministry of Agriculture and Lands [2007b]) or Sustainable Resource Management Plans (SRMPs), as well as the more recent Land Use Orders for the South Central and Central and North coasts (Appendix 2).

Strategies for the management of cultural plant species were included in only four (4%) of the FSPs sampled, and in two of these cases, only "medicinal plant species" were specified (as opposed to "culturally important plant species" more generally).

These specific strategies include:

Example cultural plant strategy #1:

Traditionally Utilized Plants of the [X] First Nation
The relative value or importance of known plant resources for traditional use is included in a listing of plants traditionally utilized by the [X] First Nation in Appendix 3. This listing, collated in the [X] First Nation Strategic Land and Resources Use Plan, Community Consultation Draft, March 25 2004, is categorized by food plants, mushrooms, medicinal plants, and materials plants (plants use for fiber, building etc.). Many of the plants are ecologically associated with riparian areas, fens, bogs, estuarine and alpine environments. Plants in this group should not be significantly impacted by this FSP. Plants associated with riparian management zones and upland forest environments are more likely to be impacted by forest operations and will be the focus of "Cultural Heritage Resource Evaluations carried out during the term of this plan.[13]

Example cultural plant strategy #2:

(b) *Medicinal Plant Species*

i) *The holder, upon request, will provide reasonable assistance to a First Nation in the identification of potential medicinal plant species sites suitable for cultural uses; and*

ii) *Once a site has been identified, and determined to be scarce, the Holder will not harvest timber, and will not construct a road over the site unless there are no other practicable options"*

Example cultural plant strategy #3:

Upon request, [company] will:

(a) *provide a First Nation with any site specific information respecting sites capable of supplying medicinal plants suitable for cultural uses, where this information has been obtained through [company]'s operational field works, and*

(b) *maintain a list of medicinal plant species, as supplied by the First Nation.*

13 Author's note: Cultural Heritage Resource Evaluations are described in detail elsewhere in this FSP.

Example cultural plant strategy #4:

Specific sites containing plants identified by First Nations peoples during annual meetings as having high aboriginal importance will be documented and managed by the Licensee to conserve and protect the important vegetation as much as practicable. Management strategies to conserve and protect will include winter harvesting, no new excavated trails, no disturbance during plant collection season or no salvage harvesting in highly sensitive areas.

Birch

Photo 2. *Birch (Betula spp.) bark harvesting. Photo credit: Wendy Cocksedge.*

Many tree species are of critical cultural importance to First Nations throughout British Columbia (e.g., birch [*Betula* spp.], aspen [*Populus tremuloides*], lodgepole pine [*Pinus contorta*], balsam [*Abies* spp.], willow [*Salix* spp.], and black spruce [*Picea mariana*]) (Parish et al. 1996; MacKinnon et al. 1999).

Specific strategies for the management of birch were included in three (3%) of the FSPs reviewed from the Southern Interior. As these examples illustrate, it is possible to develop very specific results or strategies to manage culturally important tree species or their associated ecosystems at a landscape level.

Specific examples of birch management strategies include:

Example birch strategy #1:

[The company] will maintain Birch at the stand level within the [identified] Landscape Units by retaining at least 40% of existing mature birch > 12.5 cm dbh within cutblocks harvested by the Licensee.

Example birch strategy #2:

To provide for maintenance of birch at the stand level within the Beaver Valley, Polley, Lower Cariboo River and Cariboo Lake landscape units, each holder of this FSP will:

a. adhere to the strategy presented in Section 3.7 B of this plan, emphasizing the retention of mature windfirm birch where available.

Rock Art and Pit Houses

Photo 3. *Carved by the Ancestors of the Hupacasath people. These unique supernatural creators were grooved into the rock face by possibly using sharpened sticks and wet sand as an abrasive. Photo credit: Eric Forgeng.*

One FSP specifically mentions "rock art"—also known as petroglyphs (rock carvings) or pictographs (rock paintings)—and pit houses. Rock art is automatically protected under the *HCA* (Section 13), which states "a person must not damage, alter, cover or move an aboriginal rock painting or carving that has historical or archaeological value."[14] The Ministry of Tourism, Culture and the Arts has an official policy for recording petroglyphs (B.C. Ministry of Tourism, Culture and the Arts 2008c). A permit issued by this Ministry's Archaeology Branch is required to undertake any actions affecting petroglyphs.

Section 13 of the *HCA* also states that, "a person must not damage, excavate, dig in or alter, or remove any heritage object from, a site that contains artifacts, features, materials or other physical evidence of human habitation or use before 1846."[15] This description includes pit houses—a traditional dwelling commonly used by many First Nations people across the Interior.

The specific strategy found to include both rock art and pit houses reads:

> **Example strategy for rock art and pit houses:**
>
> *If culturally modified trees, rock art or pit houses are found, they will be protected, documented, recorded using GPS technology and photographed.*

14 RSBC 1996, Chapter 187, *Heritage Conservation Act*, Section 13(2)(c). See: http://www.qp.gov.bc.ca/statreg/stat/H/96187_01.htm#section13

15 RSBC 1996, Chapter 187, *Heritage Conservation Act*, Section 13(2)(d). See: http://www.qp.gov.bc.ca/statreg/stat/H/96187_01.htm#section13

4.1.2 General Observations and Discussion

Concern that results and strategies for the CHR value lack sufficient detail has been expressed to the FREP CHR team on various occasions. It has been suggested that this lack of detail may present challenges for:

- decision makers who are assessing whether the tests of *FRPA* have been met;
- First Nations trying to understand and effectively comment on potential concerns or impacts to CHRs resulting from the FSP; and
- future effectiveness monitoring through FREP.

Generally, in the majority of CHR results and strategies reviewed for this report (66%), few or no specifics were given in the FSP regarding the aspects of CHRs for which the proponent is managing. Although some strategies contain very specific information (e.g., the above strategy outlined for birch management), most do not include precise details about how the licensee intends to carry out the strategy (e.g., "to plant or promote the natural regeneration of cedar"). Details about how strategies will be implemented at the site level are typically contained in other site-level planning documents (most notably, site plans) (B.C. Ministry of Forests and Range 2006a).

Given this obvious trend, we must consider reasons why specific CHRs are not being identified in FSPs, and what the possible implications are (risks and opportunities) for CHR conservation and protection. For example, First Nations may not have explicitly identified CHRs requiring management at a strategic level or have not communicated this information to proponents prior to FSP approval. An excerpt from one FSP reviewed for this report articulates this point.

> *[Company] has had limited success in gathering information on traditional uses within the area under this FSP. Physical evidence of historical use has also not been identified in over 20 years of ongoing operational field work. Exacerbating the ability to readily identify past cultural heritage resources and traditional use is the difficulty of access and ground visibility from the floristic communities which may obscure features that may be more evident in other forested landscapes. To date, information has not been made known of any ongoing traditional uses or cultural heritage resources within the operating area.*

Many fundamentally important reasons may explain why First Nations are unable or unwilling to provide this information during FSP development or during post-FSP planning and implementation. One is the systemic lack of human resource capacity among First Nations, which impedes their ability to respond meaningfully to an ever-increasing number of referrals from multiple resource agencies.[16] Another is that First Nations may not have the information available or accessible in a form that can be communicated effectively within the timelines provided. In some cases, the information has not been collected at all, usually due to a lack of capacity and resources. In other cases, the information may exist but has not been compiled in a comprehensive and accessible database or land use plan that First Nations can use as a tool in these kinds of strategic-level conversations.

Other possible explanations may include:

- poor or non-existent working relationships with licensees or government;
- lack of trust or concerns around the confidentiality of, and public access to, information;
- a desire for the protection of intellectual property rights for traditional knowledge holders;
- existing confidentiality agreements or protocols with research institutions;
- perceived conflicts with treaty negotiations, and assertion of rights and title; and
- fundamental opposition to the Crown's current decision-making authority on traditional lands.

Causal factors are difficult to determine with certainty, yet it is important to acknowledge that, in the absence of this information or engagement by First Nations, many proponents are unwilling to develop results and strategies for specific CHRs. The absence of practice requirements for the CHR value in *FRPA* is likely another important contributing factor to this trend.

As previously discussed, management strategies for specific CHRs may be addressed in other planning documents applicable in the non-legal realm as opposed to being contained within an FSP (e.g., cedar management agreements or SFMPs). These have not been reviewed for this report, so it is not possible to gauge the current prevalence of this approach.

Finally, many formal or informal information-sharing arrangements are in place between First Nations and proponents (see Section 4.2). Where these arrangements are functioning effectively and respectfully, some may believe that there is no need to identify specifics in an FSP because sharing relevant information about CHRs, sites, or areas of concern may be occurring regularly. The effectiveness of any information-sharing arrangement hinges on the continuity and quality of the working relationship between the two parties. This relationship, in turn, depends on the capacity of both parties to engage in and maintain the process. Capacity for First Nations is often very limited, and given current market conditions, may be limited for proponents as well. Where no clear information-sharing protocols or processes exist, risk to CHRs may be further compounded.

Assessments of the risk of damage or loss of CHRs associated with this lack of results or strategies for specific CHRs is clearly complex; however, the inclusion of commitments for a specific resource or value in the form of FSP results and strategies affords additional legal protection for that resource or value.

Use of this approach in all cases for all cultural values is probably not feasible or appropriate; the level of specificity that is practicable is unclear. Yet, as evidenced by the examples in this report, as well as the Orders recently approved on the Coast, an opportunity exists to develop guidance for professionals interested in crafting results and strategies to address known cultural heritage values (e.g., cedar, birch ecosystems in the interior, pine mushrooms, cultural trails). This guidance may be particularly useful where ongoing First Nations engagement has been minimal.

16 The new multi-agency First Nations Co-ordinated Consultation Initiative is attempting to address this issue by streamlining consultations sent out to First Nations by various government agencies.

4.2 *Information-sharing Strategies*

Establishing information-sharing protocols can be a very useful tool for both parties involved, serving to provide certainty and to clarify expectations, timelines, and the type of information to be shared. Many licensees have intentionally opted to focus their efforts on developing information-sharing results or strategies in lieu of (or in addition to) developing results and strategies for specific CHRs in their FSP. Others may have developed formal information-sharing protocols outside of the *FRPA* process with individual First Nations (e.g., information-sharing agreements, memorandums of understanding). In some situations, an undocumented informal or verbal understanding may exist between the two parties. The following information is intended to illustrate the range of information-sharing approaches contained in approved FSPs and the differing levels of detail among them.

4.2.1 Categorizing Information-sharing Strategies

Most FSPs contain some reference to information-sharing with First Nations, but the level of detail varies dramatically. What could be considered distinct strategies were found in less than half of the FSPs reviewed. While many FSPs state that the licensee will "make a reasonable effort" to communicate with First Nations (leaving the authority to interpret this term to the delegated decision maker), others provide considerable information about what these efforts will consist of (leaving less room for interpretation by the delegated decision maker). Examples include the frequency of attempts to communicate (e.g., annually, biannually, etc.), the mode of communication (e.g., in writing, face-to-face meetings), and the nature of the information to be shared (e.g., scale maps with detailed information on all proposed forest activities).

To characterize the differing level of detail among information-sharing strategies, we identified a number of common elements regularly used to clarify how a proponent intends to proceed with information-sharing attempts. Success is subject to a First Nation's willingness and ability to engage in the intended process.

- Clear timeline provided (i.e., set frequency of meeting opportunities and [or] set timeline for providing feedback to First Nation).
- Commitment to provide feedback to the First Nation on how concerns have been met, along with a clear description of communication mechanism (verbal or written).
- Commitment to conduct face-to-face meetings with community decision makers or community members.
- Commitment to provide site-specific information to the First Nation (i.e., maps or proposed harvesting or road-building activities).
- Commitment to maintain confidentiality (i.e., FSP acknowledges that sensitive information is important, and will be kept in confidence).

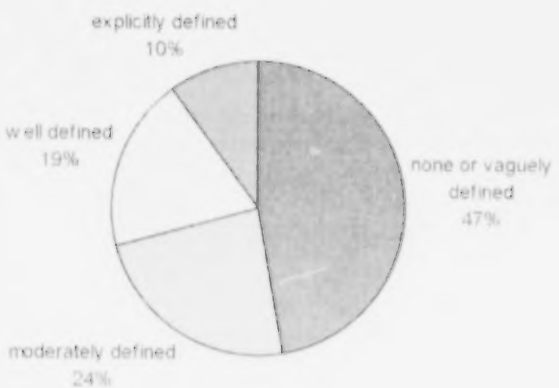
We then categorized each FSP according to how many of these elements were contained in the information-sharing strategy:

- $\leq$ 1 elements — none or vaguely defined information-sharing result/strategy
- 2 elements — moderately defined information-sharing result/strategy
- 3 elements — well defined information-sharing result/strategy
- $\geq$ 4 elements — explicitly defined information-sharing result/strategy

4.2.2 Trends

Approximately half of FSPs (47%) contained no or vaguely defined information-sharing strategies; none of the FSPs contained information-sharing results. The majority of information-sharing strategies approved were moderately to well defined (43%); only a small proportion (10%) contained explicitly defined strategies (Figure 1).

Figure 1. *Types and proportion of information-sharing strategies contained in FSPs.*



Explicitly Defined Strategies

Some examples of the explicitly defined information-sharing strategies are highlighted below along with a brief explanation of why they were characterized as such.

Example information sharing strategy #1: (explicit)

[Company] will

- *Meet regularly with local First Nation groups that have asserted claim area within the [X] FDU. As a minimum, meetings must occur annually.*
- *Request from both the Ministry of Forests and the First Nations the opportunity to review traditional use studies where they are available, ideally in conjunction with first nation representatives.*
- *Where traditional use information is made available, [company] will hold any information received in confidence. It is only with the express written consent or direction of the holder of the Traditional Use information that [the licensee] will release any traditional use information to any other party (Including other First Nation groups, the Government of BC, or the BC Ministry of Forests).*
- *Review the available information, including [licensee's] operating plans, jointly with each First Nation group to identify management activities that meet the needs of both [company] and the First Nation.*
- *Determine areas of concern that may result from forest management activities when compared with First Nation interests or activities, or that may occur between First Nations groups as a result of different forest management approaches.*
- *Attempt to resolve any conflicts through consensus. [Company] will prepare a short summary indicating whether there were any issues and how they were resolved.*
- *If conflicts cannot be resolved, [company] will prepare a summary of the concerns and how [the licensee] has attempted to address the concerns.*

Summaries of this process will be provided to the District Manager, and copied to the First Nation representative.

In the unlikely event that meetings have not occurred, documentation of the efforts made to meet and/or review information with First Nations will be provided to the District Manager by [company]. This will allow the District Manager to assess if efforts were reasonable and consistent with the intent of this Strategy.

This strategy contains the following elements:

- A clear timeline: Meetings must occur *at least* annually, but will occur on a regular basis).
- A commitment to face-to-face meetings: Mode of communication identified.
- A commitment to provide feedback (documented): The licensee will prepare summaries of the issues raised, and if and how they were resolved.
- A commitment to provide site-specific information: Licensee will review their operating plans with the First Nation, and jointly identify management activities that meet both parties' interests.
- A commitment to maintain confidentiality: FSP specifies that sensitive information about traditional use sites will be kept in confidence.

Other interesting and proactive elements include a clear intent and commitment to engage meaningfully with First Nations to *jointly identify management activities that meet the needs of both parties*, and to use existing information about traditional use sites for management purposes where permitted.

Also, the licensee clearly addresses *concerns around a First Nation being unable or unwilling to participate in the process as intended:*

> *In the unlikely event that meetings have not occurred, documentation of the efforts made to meet and/or review information with First Nations will be provided to the District Manager by [company]. This will allow the District Manager to assess if efforts were reasonable and consistent with the intent of this Strategy.*

Example information sharing strategy #2: (explicit)

> *Cultural heritage resource information gathered/reported by field crews, on an annual basis, will be submitted to the [X] Forest District by May 31st of each year. This information will also be provided to the First Nations group(s) at biannual meetings (held during the months of June and September); interim meetings will be scheduled as required. The other purpose of the meetings will be for the licensee to seek information regarding areas of interest and sensitivity on the part of the First Nations group(s), and the First Nations representative(s) can update the licensee regarding cultural heritage resources that are of continuing importance to the aboriginal people. First Nations' recommendations will be sought at both the landscape and harvest area level.*

It is expected that the licensee will have knowledge of individual harvest areas in order to engage in meaningful detailed discussion with the respective First Nations group(s). The licensee will respond in writing to the recommendations received from First Nations group(s), within 30 days upon receiving the recommendations from First Nations group(s). Minutes will be maintained of these meetings, and made available to the Ministry of Forests if required.

This strategy contains the following elements:

- Clear timelines: CHR information will be submitted to the district by May 31st of each year and the licensee will respond to recommendations from First Nations groups within 30 days.
- Commitment to face-to-face meetings (with clear timeline): Biannual meetings held every June and September.
- Commitment to provide site-specific information: Expectation that the licensee will bring knowledge of individual harvest areas to engage in meaningful, detailed discussion with the respective First Nations group(s).
- Commitment to providing feedback: Minutes will be maintained of the meetings, and feedback will be provided in writing within 30 days of receiving recommendations from First Nations.
- Commitment to document events: Minutes of meetings will be maintained and given to the Ministry, if required.

In addition, the proponent raises a critical point that *First Nations' concerns should be addressed at multiple scales* (both the landscape and harvest/site levels).

Moderately Defined Strategies

Example information-sharing strategy #3:
("moderately defined")

The following process will be used to provide the FN with the opportunity to provide cultural heritage information for resources which proposed road building or timber harvesting activities may impact. This pertains to "new" proposed development areas, where "new" refers to areas not previously forwarded to the FN:

a) The holder of this FSP will send maps of sufficient scale (ie. 1:20,000) outlining new proposed development areas to the affected First Nations to request new cultural heritage resource information on the new proposals. These plans will also show existing approved areas and harvested areas for reference purposes only.

b) New information received from the FN or MOFR within 30 days will be reviewed in the context to which the proposed harvesting activities will impact upon the cultural heritage resource value.

c) The holder of this FSP will determine what options, if any, exist to mitigate the impacts from proposed road construction and /or harvesting activities. The FN and MOFR will be notified in writing, as to what actions, if any, will be taken to conserve and/or protect identified cultural heritage resource values that are applicable under 1(a) of this section.

The above example illustrates a case where less detail was provided. It contains the following elements:

- Commitment to provide site-specific information: Specific information will be provided to First Nations. A positive highlight here is that the licensee specifies that *maps will be provided at a reasonable map scale,*[17] as will useful information about past operational activities.
- Clear timeline: The licensee will review information from the First Nation or Ministry that is received within 30 days.
- Commitment to providing feedback (documented): The First Nation and the Ministry will be notified in writing of how the CHR will be protected, although no timeline is provided.

Undefined or Vaguely Defined Strategies

The following strategy was characterized as undefined or vaguely defined:

Example information-sharing strategy #4:
(undefined/vaguely defined)

[The licensee] will make reasonable efforts to communicate development plans to affected First Nations, allowing them opportunity for input.

17 Inappropriate or insufficient map scale has been raised by many of FREP's partner First Nations as a priority concern. Some FSPs specify map scale of 1:20 000 or greater to address this critical concern.

This strategy was characterized as "undefined" or "vaguely defined." As a stand-alone strategy, the text leaves the reader with many questions. Will meetings take place, or will letters be sent? Will any information about operational activities be provided? Will "reasonable efforts" be documented? What is meant by "development plans"? How often will the licensee communicate or meet with First Nations? How long do the First Nations have to provide input? Will, or how will, the licensee consider First Nations' recommendations? Will the licensee inform First Nations groups of any changes to the FSP?

This minimal level of detail provides little clarity for First Nations or decision makers reviewing the plan. It leaves the authority and discretion for interpreting what is "reasonable effort" and what constitutes sufficient "opportunities for input" to a delegated decision maker.

4.2.3 General Observations and Discussion

Information-sharing agreements, strategies, or commitments provide a level of certainty for both licensees and First Nations by reducing risks associated with the unpredictable nature of some working relationships or the prevailing political or economic climate. This analysis illustrates that currently approved information-sharing strategies contained in FSPs vary considerably in their level of detail and approach.

The relationship between the level of detail contained in an information-sharing strategy and the effectiveness of this strategy on the ground remains unclear. Depending on the nature of the working relationship and other contributing factors, less detail may result in either increased adaptability or increased risk. More detail may lead to more certainty for the parties involved, or to less flexibility in adapting to individual and complex circumstances.

Anecdotal accounts suggest that parties are developing these types of arrangements through other mechanisms (e.g., memorandums of understanding, business partnerships, MFR district information-sharing protocols, etc.), arguably negating the need for their inclusion in an FSP. Agreements may also be reached more informally through verbal means. The success of this approach depends on the maintenance of stable relationships between the parties involved.

The FREP CHR team is currently conducting research about the prevalence and functionality of these approaches. Answers to these questions are critical to provide additional context for the trends identified above.

4.3 *Additional Notable Trends*

In addition to the first two lines of inquiry, a third goal of this project was to identify other notable trends or similarities evident in approved results or strategies for the CHR value. Two notable trends emerged:

1. Commitments to complete archaeological or CHR field assessments before harvesting (Section 4.3.1).
2. The identification of all First Nations affected by a given FSP (Section 4.3.2).

4.3.1 Commitment to Complete Field Assessments

Context

Detailed data about the location of CHRs, sites, or features on the land base as well as information about which CHRs require management at either a site-specific or landscape scale is often not available or accessible to land managers. This is typically due to a lack of resources to collect or compile these data in an easily accessible database (i.e., funding and human resources). In the absence of this information, it is difficult to develop landscape-level management targets or approaches, and extremely difficult to modify forest practices at the operational level to address critical site-specific concerns.

Archaeological resources have had some form of legislated protection since 1948,[18] yet detailed field inventories currently cover only a small portion of the province in localized areas. Many archaeological sites remain undiscovered. Others, although known, have either not been documented or records have not been submitted to the Archaeology Branch for inclusion in the provincial registry.[19] Many records are managed by First Nations. Because many forestry professionals rely heavily on provincial data sources for information during operational planning, the protection of sites for which information is not available through these sources may be at increased risk.

18 The *Heritage Conservation Act* (1996), the *Archaeological and Historic Sites Protection Act* (1972), the *Archaeological and Historic Sites Protection Act* (1960), and the *Historic Objects Preservation Act* (1948).

19 The provincial Archaeological Site Inventory is accessible via the Remote Access to Archaeological Data (RAAD) application at: http://srmapps.gov.bc.ca/apps/raad/

Managers frequently rely on archaeological predictive models or archaeological overview assessment maps to determine where more detailed field assessments are required, typically in areas rated as "medium high" to "high" probability by archaeological predictive mapping tools. Yet, these models have not been completed across the entire land base, and there has been limited consistency in the methods used in model development leading to questionable model accuracy in many cases. If First Nations were not directly involved in model development, model accuracy and credibility are often contested. Updated provincial archaeological overview assessment standards and guidelines (B.C. Ministry of Tourism, Culture and the Arts 2008a) were recently released that directly acknowledge this latter point:

> *Consultation, collaboration and sustained involvement with appropriate representatives from local First Nations is important to the development, acceptance and implementation of an archaeological overview assessment study. (B.C. Ministry of Tourism, Culture and the Arts 2008a:4)*

Many foresters rely on preliminary field reconnaissance (PFR) to determine where more detailed field assessments are required. The *British Columbia Archaeological Resource Management Handbook for Foresters* states that, "PFRs are conducted to assess or confirm the potential of proposed operational areas to contain archaeological resources protected under the *Heritage Conservation Act* and recommend more detailed archaeological field studies, where appropriate" (B.C. Ministry of Tourism, Sport and the Arts 2007:9).

Many hundreds of PFRs associated with forestry operations are conducted each year. However, many of these take place outside of the *HCA* permitting process and, therefore, are not subject to the professional reporting and recording standards required for studies conducted under permit. "The lack of standards has left MFR, the forest industry, and First Nations unsure of the level of recording needed to support these studies" (B.C. Ministry of Tourism, Culture and the Arts 2008b:1). The best practices for PFRs provided by the Ministry of Tourism, Culture and the Arts recommend recording and submitting results of all field studies to the Archaeology Branch according to defined standards, yet many results are currently not submitted.

Other than guidelines pertaining to archaeological resource management, there is currently no comprehensive program at the provincial level devoted to the documentation or inventory of CHRs, nor standardized protocols for collecting this information. Some pre-harvest CHR assessments are being completed by First Nations, but coverage is limited and their completion often sporadic due to a lack of resources. As well, many existing inventories are either out of date (e.g., many traditional use studies were completed in the late 1990s), incomplete, or exist in a form that is difficult to access in a timely manner (e.g., oral histories or interviews that have not been translated into spatial files). At the time of writing, the most recent survey of MFR districts revealed that only three had searchable databases of CHR information, and only one of these had spatial capability.[20] Many proponents have included commitments to completing various types of "assessments" in their FSP, presumably due to this critical information and knowledge gap.

Trends

Of those FSP holders that have committed to completing an assessment of some kind (54, or 49%), 34 refer specifically to an "archaeological assessment" or an "archaeological impact assessment," and 20 (18%) use the term "cultural heritage resource assessment." In the case of the "archaeological" assessments, the approach appears to be fairly consistent, illustrated by the following examples.

> **Example archaeological assessment strategy #1:**
>
> *Before a holder conducts forest practices, the holder will ensure that an [archaeological evaluation/ archaeological assessment] is conducted within areas:*
>
> ***(a)*** *that contain previously identified archaeological resources*
>
> ***(b)*** *that are identified as having "high potential" within an established archaeological predictive map or model for the area, or*

20 Under ecosystem-based management, the idea of creating a spatial inventory and the requirement of accounting for cedar supply has licensees contemplating and piloting a cedar "registry" to ensure First Nations' monumental cedar needs can be met in perpetuity. These agreements occur at the company/ First Nation level and may not be explicitly mentioned in the FSPs at present (G. Farenholtz, International Forest Products, pers. comm., 2008).

(c) for which site-specific information regarding archaeological resources is brought forward or made available to the holders of this FSP prior to harvesting or road construction by an aboriginal individual or a government employee

Example archaeological assessment strategy #2:

Conduct Archaeological assessments within proposed development areas:

(a) identified as having a "high" likelihood of containing archaeological features, through the application of the [X] forest district Archaeological Predictive Model, and/or

(b) where potential archaeological features are encountered during site development

Many use language identical to that in the first example, but simply substitute the term "cultural heritage resource assessment" for "archaeological assessment." Several others provided a definition of a "cultural heritage resource assessment" followed by a series of steps that will be taken to complete the "assessment."

Example definition of a cultural heritage resource assessment #1:

A "cultural heritage resource assessment" is a process carried out by a qualified person, and consists of the following steps:

(a) record the location of the cultural heritage resource

(b) evaluate the direct impact of the forest activity on the CHR

(c) prepare recommendations to mitigate the impact on, conserve, or if necessary protect the cultural heritage resource considering:

i) the relative value or importance of the CHR to a traditional use by an aboriginal people

ii) the relative abundance or scarcity of the CHR

iii) the historical extent of the traditional use of the CHR, and

iv) the impact on [X]'s timber harvesting rights with respect to conserving or protecting the CHR, and

(d) and communicate the outcomes of this evaluation to [the First Nation in whose asserted traditional territory the area lies/the individual or group that originally provided the information].

In the following example, a "qualified person" will be responsible for completing field CHR evaluations, yet the nature of the qualification criteria is unclear. Concern exists among archaeology professionals that field studies are increasingly being completed by individuals with minimal and inadequate training, leading to an increased risk that sites and features are being missed during inventories, and subsequently damaged by forestry activities.

Example definition of a cultural heritage resource assessment #2:

A "cultural heritage evaluation" means a review by a qualified person in the field of cultural heritage resources for the purpose of gathering information that will help inform choices about what actions to take to mitigate potential negative impacts to cultural heritage resources and archaeological resources as a result of conducting primary forest activities.

In the following example, the FSP holder provides a clear description of what a "CHR assessment" would entail.

Example definition of a cultural heritage resource assessment #3:

Specific sites containing plants identified by First Nations peoples during annual meetings as having high aboriginal importance will be documented and managed by the Licensee to conserve and protect the important vegetation as much as practicable. Management strategies to conserve and protect will include winter harvesting, no new excavated trails, no disturbance during plant collection season, or no salvage harvesting in highly sensitive areas.

Culturally modified trees, rock art and pit houses show evidence of traditional use. The strategy to conserve and protect these resources will be to inform salvage operators of features relating to traditional use and provide training sessions for culturally modified tree and pit house identification. If culturally modified trees, rock art, or pit houses are found, they will be protected, documented, recorded using GPS technology and photographed.

In approximately half of the FSPs reviewed (51, or 46%), the proponent included a commitment to carry out assessments of some kind where previously unknown features are encountered in the field.

Example of addressing previously unknown features (partial excerpt):

If a previously unidentified CHR is encountered during harvesting or road construction, operations will cease to the extent necessary to protect the feature until a [archaeological evaluation or archaeological assessment or cultural heritage resource assessment] can be carried out.

A small proportion of FSPs (10, or 9%) make specific commitments related to the completion of CMT surveys. One approach, which appears several times, reads:

Example CMT survey strategy:

If the CHR consists of only culturally modified trees (CMTs), then:

(a) *[company] will conduct a CMT survey, and*

(b) *if a CMT is found, the survey results and the [company] management recommendations will be provided to the affected First Nation(s) in whose traditional territory the area lies.*

A few licence holders (3, or 3%) made specific commitments to provide training or information to field staff or contractors operating within the FSP area.

Example training-related strategy #1:

Layout crews will be trained in identification of cultural features (e.g. Culturally Modified Trees, Fish or House pits), and will be instructed to notify [company X] if anything is found.

Example training-related strategy #2:

All persons employed to develop cutblocks or roads or to conduct timber harvesting or road construction activities on a CP or RP granted under the authority of this FSP will participate in an "Archaeological pre-Work" meeting.

The following FSP included detailed instructions about when CHR assessments would be undertaken.

Example cultural heritage evaluation strategy:

Despite paragraph 5) above, the Holder will not conduct a cultural heritage evaluation if:

a) *harvesting and yarding equipment is restricted to previously established roads and trails, or*

b) *harvesting occurs with low-impact harvest equipment (feller-processor-forwarder system) on*

i) *dry soils and the harvest area is less than 1.0 hectare, or*

ii) *frozen ground, or*

iii) *snowpack conditions*
providing that the crew members are trained in the identification and avoidance of above ground cultural heritage resource features, notably cairns (artificial rock piles), rock rings, cultural depressions, and culturally modified trees, or

c) *harvesting occurs with equipment other than low-impact harvest systems on frozen ground or snowpack sufficient to bear the weight of harvesting or yarding equipment with no appreciable disturbance to the soil where archeological deposits are buried below the surface providing that,*

i) *the crew members are trained in the identification and avoidance of above ground cultural heritage resource features, notably cairns (artificial rock piles), rock rings, cultural depressions, and culturally modified trees, and*

ii) *the harvesting equipment is restricted from the following areas within an area identified as having moderate or high archeological potential from established archaeological overview assessment mapping,*

- *within 30m of a terrace margin*
- *ridge crests*
- *knoll summits*

General Observations and Discussion

Several important issues are related to the examples provided above. A lack of clarity surrounds:

- the qualifications required by field surveyors or other field staff responsible for identifying cultural features or completing assessments;
- the delivery of the training described, or whether this training will be delivered according to provincial standards by a professional archaeologist; and
- whether the various "surveys" and "pre-work meetings" will be completed according to acceptable provincial standards or any other established standards (e.g., standards developed by a local First Nation).

Some FSPs refer to "cultural heritage resource assessments," but provide few or no details about exactly what this entails. The distinction between archaeological assessments (for which provincial standards or best practices exist) and CHR evaluations (for which no provincial standards or best practices currently exist) is also unclear.

Through partnerships and other business arrangements or transfer agreements (either independently, or in conjunction with industry), several First Nations are routinely conducting pre-harvest CHR field assessments. Some have well-established and documented protocols in place for this process. Many are using technological solutions to assess the potential impacts of proposed forest and other resource development activities on cultural values by combining field reconnaissance data with traditional use study information, archaeological data, ecological data, and harvesting information using geographical information systems.

No provincial standards, protocols, or best practices presently exist for conducting "cultural heritage resource assessments." An opportunity therefore exists to establish provincial standards or best practices based on the current protocols used by First Nations, as well as on existing provincial standards or guidelines for archaeological field studies, such as those for archaeological overview assessment (B.C. Ministry of Tourism, Culture and the Arts 2008a), archaeological impact assessment (B.C. Ministry of Tourism, Sports and the Arts 1998), and preliminary field reconnaissance (B.C. Ministry of Tourism, Culture and the Arts 2008b).

4.3.2 Identification of First Nations Affected by Forest Stewardship Plans

Another observed trend was the identification or listing of all First Nations affected by the FSP, or a particular forest development unit within the FSP area (14, or 13%). Most proponents refer more generally to "First Nations" or "aboriginal groups."

Industry and government use various tools to identify First Nations affected by a given decision or management plan (e.g., the Consultative Areas Database or lists developed in Forest and Range Agreements or Forest and Range Opportunity Agreements, etc.), so it is unclear why certain FSP authors chose this approach. One likely explanation is a goal of increasing transparency and creating clarity for First Nations and members of the public reviewing a given FSP, particularly those without access to the tools mentioned above. With an increasing number of overlapping FSPs and other resource tenures affecting some First Nations' traditional territories, this clarity is beneficial.

4.4 *Unique Strategies*

A couple of proponents included unique results or strategies that address three commonly raised concerns identified by First Nations: access management, the application of pesticides in high-use areas, and the recognition and use of land use plans developed by First Nations.

4.4.1 Access Management

Many First Nations have expressed concerns related to:

- *increased public access* to cultural sites or areas created by new roads into previously remote areas; or
- *decreased access* to important cultural use sites or areas for community members due to forestry or range management on their traditional lands (e.g., active logging or road-building activity, decommissioning of roads used to access cultural sites, fencing and locked gates, etc.), or poor relationships with licensees.

One licensee generally addressed this issue using the following language:

> **Example access result:**
>
> *If at any time, special sites are confirmed or made known to be of traditional use value (none have been to date), [Company X] will assist in managing access (restricting or improving), or modifying the planned activity when requested by First Nations participants.*

Although no other proponents addressed this concern, access management has been identified on numerous occasions as a critical issue to First Nations; therefore, it could be an important avenue for future exploration by professionals.

4.4.2 Herbicide/Pesticide Management

Context

Upon introduction of the *Integrated Pest Management Act* and Regulation in December 2004, the provincial government made a commitment to develop procedures for First Nation consultation. When industry or government agencies formulate plans for pest management activities that may adversely affect First Nations' rights or title interests, appropriate consultation is required.[21]

First Nations have raised wide-ranging human and environmental health concerns related to pesticide or herbicide application in the vicinity of gathering, hunting, or fishing areas. In 2007, the Integrated Pest Management team (Ministry of Environment, Environmental Protection division) held a series of First Nations Regional Engagement Workshops across the province to discuss these issues and the existing consultation guidelines.[22] Specific concerns raised at these workshops included the following.

- Pesticides can do damage to traditional use medicines even if sprays are not applied directly to the plants.
- Cross-contamination is a concern for some First Nations (i.e., birds eating bugs that were sprayed and carrying those herbicides to other areas). Proponents should be able to provide information about how pesticides will be applied and whether they will affect other species.
- Pesticides in the ground bioaccumulate and do not break down; this potentially affects the vegetation system. Compounds are often left on weeds that animals eat, and then people eat.
- First Nations are not always aware of what has been treated. For example, an individual may pick sage in the territory without knowing whether it has been treated.
- Many First Nations believe that all species have a place in the world, including mice and ants, and do not necessarily support pesticide treatments for them, especially when it is more about human preference to help forest companies.

Trend

Only one FSP outlined a result to address this issue.

> **Example herbicide/pesticide result:**
>
> *[Company X] will continue to manage plantation and roadside vegetation without the use of chemical herbicides so that the respective First Nation have unfettered access to early seral plant communities within the harvested areas for traditional use throughout the area covered by this plan.*

Pest management plans were not reviewed for this report, so it is unclear whether First Nations' concerns are being addressed to any degree in them. Once again, given the profile of this issue and its importance to First Nations, professionals may want to consider designing similar strategies within or in conjunction with their FSPs.

4.4.3 First Nations Land Use Plans

Context

An increasing amount of resources is being channelled by First Nations towards the creation of land use plans, particularly in areas where a First Nation was not directly or actively involved in previous strategic land use planning processes (e.g., LRMP or SRMP processes). The plans are frequently developed and used in conjunction with a traditional use study or other cultural resource information to identify management guidelines and identify sensitive areas within a First Nation's asserted traditional territory.

These plans can serve as tools for First Nations to use during strategic (e.g., FSP information-sharing) or site-level (e.g., responding to referrals) consultation.[23] However, some First Nations have expressed concerns that their land use plans are not adequately incorporated into resource

21 For more information on this issue, and to view a copy of the Interim Draft Guidelines for First Nations consultation, go to: http://www.env.gov.bc.ca/epd/ipmp/first_nations_cons_guide/

22 Detailed workshop notes can be accessed at: http://www.env.gov.bc.ca/epd/ipmp/first_nations_cons_guide/regional_workshops/cranbrook.htm

23 To view examples of First Nations land use plans, refer to the following websites:
Hupacasath Land Use Plan: http://www.hupacasath.ca/indexlup.html
Lil'wat Land Use Plan: http://www.lilwat.ca/+peopleland/storys/peoplelandstory11.html
Ktunaxa Land Use Plan: http://www.ktunaxa.org/fourpillars/land/landuseplan.html

management planning and implementation decisions. In some cases, valid concerns relate to data quality standards, or challenges associated with integrating qualitative or holistic management goals within the existing scientific management paradigm. In other cases, a significant opportunity may exist to work with First Nations in effectively incorporating their land use plans with *FRPA* planning at different stages of the process.

Trend

One FSP holder acknowledged this issue directly.

> **Example First Nations land use plan strategy:**
>
> *Where a land use plan has been produced by an aboriginal organization, and made available in writing to a holder of this FSP, each holder of this FSP will consider the information contained in the land use plan received during planning of forest management activities, where the land use plan received is not in conflict with the objectives set by government for the area of the FSP.*

No other FSPs addressed this issue, but given the growing prevalence of First Nations land use plans, it may become a higher profile issue in the future.

4.5 *First Nations Owned, Operated, and Affiliated Companies*

In March 2003, the MFR established a First Nations Forest Strategy as a component of its forestry revitalization plan. Part of that plan included the enactment of the *Forestry Revitalization Act* to take back 20% of the allowable annual cut from major replaceable forest licences and tree farm licences throughout the province. This decision was made, in part, to provide volume for direct awards of forest tenures to First Nations. At the same time, the provincial government appropriated $95 million for forestry revenue sharing with First Nations throughout British Columbia (Association of British Columbia Forest Professionals 2007).

Offers of forest revenue sharing and tenure allocation were originally made through the Forest and Range Agreement program established in 2002–2003, which has since evolved into the Forest and Range Opportunities program to be consistent with the vision of the New Relationship (June 2006). Other direct award tenures, including agreements for access to timber affected by the mountain pine beetle, have also been recently signed with First Nations (Association of British Columbia Forest Professionals 2007).

As a result, in 2005, companies owned by First Nations held tenures with annual harvest volumes of 3.7 million m^3, or 4.5% of the provincial allowable annual cut, and double the 1.8 million m^3 in 2003. An additional 2.2 million m^3, or 2.7% of the allowable annual cut, was held in tenures controlled through joint ventures between First Nations and non-aboriginal companies in 2005, providing opportunities for First Nations to develop skills and entrepreneurial capacity (B.C. Ministry of Forests and Range 2006b).

The increasing influence of First Nations in the forest sector includes more direct involvement in the management of CHRs on the land base. As such, we were interested in identifying any unique approaches or notably different trends in the results and strategies crafted by First Nations tenure holders for the CHR value compared to non-aboriginal tenure holders. A clear difference in trend could indicate that issues of importance to First Nations exist that non-aboriginal tenure holders should consider. Innovative approaches could serve as a future learning tool for other FSP holders when attempting to address the CHR value in FSPs.

4.5.1 Trends

A chi-square statistical analysis was completed to compare identified trends between FSPs controlled by, or affiliated with, a First Nation (see Appendix 3), and those that are not. Results are summarized below in Table 3.

Overall, neither group was more likely ($P = 0.338$) to include results and strategies for specific CHRs, possibly illustrating the aforementioned challenges for all tenure holders in using this approach. However, companies owned by or affiliated with coastal First Nations were significantly more likely ($P = 0.029$) to include cedar-related strategies than non-aboriginal companies, with all First Nations companies (100%) addressing cedar management directly in their FSP compared to 59% of non-aboriginal companies. The land use objectives applicable on the Coast include cedar-related objectives that proponents must now address in FSPs, highlighting the significance of this issue to First Nations. The examples provided in this report represent a potential learning opportunity for proponents crafting results and strategies to address this value.

Among the four FSP holders that addressed cultural plant management, the majority (3) appeared to address the management of specific sites, and two referred only to medicinal plants. The remaining FSP, held by a First Nations-owned company, included a descriptive paragraph that highlighted the various uses for cultural plants, referred to a specific plant list included in an appendix to the FSP, and focussed on a more risk-based, landscape-level approach using the identification of key "environments" that support cultural plants as a trigger for detailed field evaluations (see Section 4.1.1: Trends – Cultural Plants, Cultural Plant Strategy #1). This example is an interesting illustration of how this complex value has been addressed, and mirrors the more ecosystem-based approach used in some land use plans to address cultural plants (e.g., Morice LRMP; B.C. Ministry of Agriculture and Lands 2007b).

Table 3. *Results for companies owned by, or affiliated with First Nations, and companies with no First Nations affiliation (as % of total). Light blue shading indicates a statistically significant difference.*

Category		% of total sample (total = 110)	% of First Nations controlled or affiliated FSPs (total = 19)	% of FSPs with no First Nations affiliation (total = 91)
Specific CHRs addressed	Overall (at least 1 CHR identified)	34	42	32
	Cultural plants	4	5	2
	Birch	3	0	3
	Culturally modified trees	10	11	10
	Cedar (subtotal of FSPs = 35)[a]	**69**	**100**	**59**
Information-sharing protocols	Not defined or vaguely defined	47	42	48
	Moderately defined	24	32	22
	Well defined	19	11	21
	Explicitly defined	10	16	9
Commitment to completing assessments (either archaeological or cultural heritage resource assessments)		**49**	**58**	**47**
Unique strategies (i.e., access management, pesticide application, addressing First Nations land use plans)		2	0	2

a Only FSPs from MFR districts in the Coast Forest Region were included in this subsample.

Neither group was significantly more likely ($P = 0.620$) to include information-sharing protocols in their FSPs, nor were they more or less likely to include more detail in these protocols. Similarly, neither group was more likely ($P = 0.660$) to list all First Nations affected by their FSP. Both trends could arguably be linked to the size of a given operating area or the number of First Nations affected within that area. For example, where more First Nations are affected by a given FSP, it may be more important to provide clarity around the interactions between parties.

Another notable difference was that the companies owned by, or affiliated with, First Nations were significantly more likely ($P = 0.025$) to include results or strategies related to the completion of archaeological or CHR assessments (approximately 58% versus 47%, respectively). Given that First Nations have been responding to referrals for several years, many with limited resources, data, and capacity, companies affiliated with First Nations may be more intimately aware of the need among forest managers for improved CHR or archaeological inventories and information.

Finally, the only examples of "unique strategies" (to address access management, pesticide/herbicide management, and the use of First Nations land use plans) were found in FSPs compiled by companies with no First Nations affiliation.

4.5.2 Discussion

All companies are gaining experience operating in the challenging results-based environment created by *FRPA*, and addressing the complexities of managing for the CHR value. Undoubtedly, new First Nations tenure holders entering the industry in recent years have a range of previous forest management experience. In the future, it will be interesting to complete a similar comparative analysis to identify emerging differences in trends or innovative approaches being used by First Nations tenure holders.

5.0 CONCLUSIONS

To provide a sense of how proponents are addressing the complex CHR value, this report has presented a review of the approved FSP results and strategies[24] that have been developed for this value across the province. Section 5.1 highlights the most notable trends that were identified across a subset of FSPs; Section 5.2 outlines recommendations for next steps based on the more detailed discussions in previous sections of this report.

5.1 *Summary of Trends*

- Thirty-four percent of forest stewardship plans reviewed for this report identify results and strategies for specific CHRs: cedar (22% of all FSPs, or 69% of all FSPs on the Coast), culturally modified trees (10%), birch ecosystems (3%), cultural plants (4%), rock art and pit houses (1%).
- Companies owned by, or affiliated with, coastal First Nations were significantly more likely to include cedar-related strategies than non-aboriginal companies ($P = 0.029$): all First Nations companies (100%) addressed cedar management directly in their FSPs compared to 59% of companies not affiliated with First Nations.
- Approximately half of the FSPs (49%) commit to the completion of either archaeological assessments (31%) or "cultural heritage resource" assessments (18%). Many use very similar language or use the terms interchangeably. Others provide a definition of a "cultural heritage resource assessment" followed by a series of steps that will be taken to complete the "assessment."
- Companies owned by, or affiliated with, First Nations were more likely to include commitments to complete field assessments (archaeological or CHR assessments) compared to companies with no known First Nations affiliation.
- A small proportion of FSPs (10, or 9%) made specific commitments to complete culturally modified tree surveys.
- A few licence holders (3, or 3%) made specific commitments to provide CHR-related training or information to field staff or contractors operating within the plan area.

24 No Woodlot License Plans have been considered in this analysis.

- Where "cultural heritage resource assessments" were mentioned, plan preparers did not always include a definition for this term or explanation of what such assessments would entail; therefore, an opportunity may exist to develop standards or guidelines for these assessments based on work currently under way by First Nations.
- Defined information-sharing strategies were included in 53% of reviewed FSPs. The level of detail provided in these strategies varied considerably among plans, although some common elements included:
  - a clear timeline for communication outlining the frequency of communication;
  - a commitment to provide feedback on concerns raised;
  - a commitment to conduct face-to-face meetings to share information;
  - a commitment to provide site-specific information; or
  - a commitment to maintain confidentiality of sensitive information.
- Ten percent of FSPs contained "explicit" information-sharing strategies (i.e., strategies that included four or more of the elements described above), 43% were moderately to well defined (containing two or three elements).
- Thirteen percent of FSPs identified all First Nations affected in the plan or specific forest development units within the operating area. This approach seems to be used to provide added transparency and clarity for First Nations and others reviewing the plan.
- A few unique examples of strategies designed to address specific First Nations concerns included: restricting or improving access management; effects of pesticide and herbicide application in high-use areas; and the use and valuation of First Nations land use plans in various stages of planning.

5.2 *Recommendations*

First Nations, government, industry, and professional associations should work together to implement the following recommendations. An Action Plan, published in conjunction with this report, details specific steps that will be taken to address each recommendation.

Recommendation 1

Document the prevalence, content, and effectiveness of strategies or protocols developed by proponents through various "non-legal" mechanisms for CHR management. These mechanisms may include (but are not limited to):

- FSP supporting documents
- Information-sharing agreements or protocols
- Cultural resource management agreements (e.g., cultural cedar management strategies)
- Sustainable forest management plans (or equivalent plans developed for sustainable forest management certification purposes)

Rationale

Proponents have asserted that various non-legal mechanisms are being widely used in lieu of legally binding FSP results and strategies, ensuring sufficient detail and direction for the effective management CHR values. Given the emphasis within the results-based *FRPA* model on professional reliance as opposed to regulation, recording the prevalence and content of CHR-related strategies in these other documents will be a critical next step in furthering the dialogue around this issue. Combined with results from field monitoring, it will be possible to begin evaluating the effectiveness of various approaches on the ground.

Recommendation 2

Assess the effectiveness of information-sharing strategies and protocols.

Rationale

Establishing information-sharing protocols can be a useful tool for the parties involved, serving to provide certainty and to clarify expectations, timelines, and the type of information shared.

In their FSPs, many licensees included information-sharing strategies with varying levels of detail. It is unclear whether detailed strategies (defined as "explicit" in this report) are

more effective than those with less detail (defined as "vague or undefined" in this report). Also, no data exist to assess whether protocols or strategies established through non-legal mechanisms are effective or adhered to.

Monitoring the effectiveness of various approaches could lead to the establishment of formal "factors to consider" for decision makers reviewing these strategies, or "best practices" for practitioners developing information-sharing strategies with First Nations.

Recommendation 3

Develop guidance for professional due diligence in the completion of "pre-harvest cultural heritage resource assessments." This guidance should identify:

- all appropriate information sources and how to access them (respecting any confidentiality concerns);
- the types of sites, features, and values to record for a given area or region; and
- effective methods of collecting and managing CHR information.

Rationale

Detailed data about where CHRs, sites, or features are located on the land base, as well as information about which CHRs require management at either a site-specific or landscape scale, is often not available or accessible to land managers. In the absence of this information, it is difficult to develop landscape-level management targets or approaches, and extremely difficult to modify forest practices at the operational level to address critical site-specific concerns.

Some pre-harvest CHR assessments are being completed by First Nations, but coverage is limited and the completion is often sporadic due to a lack of resources. Many proponents have included commitments in their FSPs to complete "cultural heritage resource assessments," presumably because of this critical information and knowledge gap. Although professional guidance exists for the completion of archaeological surveys (i.e., preliminary field reconnaissance, archaeological impact assessment, archaeological overview assessment), none currently exists for CHR surveys.

This task should be completed in collaboration with First Nations, proponents, professional archaeologists, and government staff.

Recommendation 4

Develop a FREP Extension Note or FREP Bulletin identifying high-priority CHR features or values (at local, regional, and provincial scales) that professionals should consider when developing results and strategies in FSPs, or for other planning processes. This document will include specific examples from existing FSPs, strategic plans (e.g., land and resource management plans), local knowledge, and results from 2008 pilot FREP field monitoring.

Rationale

Current legislation defines a "cultural heritage resource" in a broad sense. Many FSP authors have not improved clarity on this point for various reasons (see Section 4.1.2). The inclusion of CHR objectives in coastal land use orders, and the specific examples highlighted in this report (i.e., for cedar, culturally modified trees, birch, cultural plants, rock art and pit houses) suggest that an opportunity exists to more clearly define CHR definitions or legal objectives (in the case of a land use objective) at a landscape scale without compromising the proponents' flexibility to develop locally applicable results and strategies.

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APPENDIX 1. *FOREST AND RANGE PRACTICES ACT:* PROVISIONS IN STATUTE AND REGULATION SPECIFIC TO FIRST NATIONS ISSUES

Forest Planning and Practices Regulation Section 10

Objectives set by government for cultural heritage resources

10 The objective set by government for cultural heritage resources is to conserve, or, if necessary, protect cultural heritage resources that are:

a) the focus of a traditional use by an aboriginal people that is of continuing importance to that people, and

b) not regulated under the *Heritage Conservation Act*.

Comment: Persons preparing forest stewardship plans must specify results or strategies to meet the objective above. In doing so consideration may be given to the factors set out in the Schedule to the Regulation (see below).

Forest Planning and Practices Regulation Schedule 1, Section 4

Factors relating to objective set by government for cultural heritage resources

4 The following factors apply to a result or strategy for the objective set out in section 10 [objectives set by government for cultural heritage resources]:

a) the relative value or importance of a particular cultural heritage resource to a traditional use by an aboriginal people;

b) the relative abundance or scarcity of a cultural heritage resource that is the focus of a traditional use by an aboriginal people;

c) the historical extent of a traditional use by an aboriginal people of a cultural heritage resource;

d) the impact on government granted timber harvesting rights of conserving or protecting a cultural heritage resource that is the focus of a traditional use by an aboriginal people;

e) options for mitigating the impact that a forest practice might have on a cultural heritage resource that is the focus of a traditional use by an aboriginal people.

Comment: In addition to cultural heritage resources that are identified by persons preparing forest stewardship plans, government may take action to identify specific cultural heritage resources as resource features, particularly where they are restricted to a particular geographic location (for example, western redcedar used for cultural purposes on the Coast). This is done through the Government Actions Regulation (Section 3, below).

Government Actions Regulation Section 3

Resource features

3 (1) Subject to subsection (2), the minister may identify the following as a resource feature:

d) surface or subsurface elements of a karst system;

e) a range development;

f) Crown land that is being used for research or experimental purposes;

g) permanent sample sites used as snow courses by the federal or Provincial government for the purpose of measuring the water content of the snow pack on a given area;

h) trees or other plants that the minister reasonably believes to be important genetic resources;

i) a cultural heritage resource that is the focus of a traditional use by an aboriginal people and that is not regulated by the *Heritage Conservation Act*;

j) an interpretative forest site, recreation site or recreation trail;

k) a trail or other recreation facility referred to in section 56 [interpretive forest sites, recreation sites and recreation trails] of the *Act* that is authorized by the minister or under another enactment;

l) a recreation feature that the minister considers to be of significant recreational value.

(2) The minister may make an order under subsection (1) if the minister is satisfied that the resource feature requires special management that has not otherwise been provided for under this regulation or another enactment.

(3) The identification of a resource feature under subsection (1)

a) may be by category or type, and may be restricted to a specified geographic location, and

b) must be sufficiently specific to enable a person affected by it to identify the resource feature in the ordinary course of carrying out forest practices or range practices.

Comment: Forest practices for resource features are addressed in the Forest Planning and Practices Regulation (Section 70, below).

Forest Planning and Practices Regulation Section 70

Resource features and wildlife habitat features

70 (1) Unless exempted under section 91 (5) [minister may grant exemptions], an authorized person who carries out a primary forest activity must ensure that the primary forest activity does not damage or render ineffective a resource feature.

(2) Unless exempted under section 92 (2) [Water, Land and Air Protection may grant exemptions], an authorized person who carries out a primary forest activity must ensure that the primary forest activity does not damage or render ineffective a wildlife habitat feature.

Comment: Persons preparing a forest stewardship plan must attempt to meet and discuss the plan with First Nations groups, as set out in the Forest Planning and Practices Regulation (Section 21, below). Section 22 requires a description of those attempts, and requires consideration of written comments received and a description of any changes that are made as a result. Topics for discussion at meetings may be expected to include results or strategies to address the objective set by government for cultural heritage resources (Forest Planning and Practices Regulation, Section 10).

Forest Planning and Practices Regulation Sections 21–22

Review and comment

21 (1) A person who publishes a notice under section 20 (1) [providing notice] must, during the period specified in the notice,

a) if required by the minister, refer a copy of the forest stewardship plan, or a portion of the plan, to any agency of government,

b) provide an opportunity to review the plan in a manner that is commensurate with the nature and extent to which a person's rights or interests may be affected by the plan, and

c) make reasonable efforts to meet with First Nation groups affected by the plan to discuss the plan or amendment.

(2) A person given the opportunity to review or discuss the plan under subsection (1) may submit written comments in respect of the plan during the period and to the address specified in the notice under section 20 (1).

Responding to review and comment

22 (1) A person who publishes a notice under section 20 (1) [providing notice]

a) must consider any written comments received under section 21 [review and comment] that are relevant to the plan, and

b) is not required to consider comments in respect of

i) areas described in section 14 (1) (b), (1) (c), (3) (a) or (4) [identifying forest development units], or

ii) results and strategies that relate to the areas referred to in subparagraph (i).

(2) A person who submits a forest stewardship plan to the minister for approval must submit with the proposed plan

a) a copy of the notice published under section 20,

b) a copy of each written comment received under section 21,

c) a description of any changes made to the plan as a result of the comments received under section 21, and

d) a description of the efforts made to comply with the requirements of section 21 (1) (d)

APPENDIX 2. *CENTRAL AND NORTH COAST LAND USE ORDERS*

Excerpt from *Central and North Coast Order* (B.C. Ministry of Agriculture and Lands 2007a) pertaining to First Nations.

Note: A *South Central Coast Order* has also been established (B.C. Ministry of Agriculture and Lands 2007c), and is identical to that quoted below.

Part 2 - First Nations

3. Objectives for First Nations' traditional forest resources

(1) Maintain traditional forest resources in a manner that supports First Nations' food, social, treaty and ceremonial use of the forest.

4. Objectives for First Nations' traditional heritage features
(1) Protect traditional heritage features, other than culturally modified trees, and include a management zone of sufficient size to protect the integrity of the traditional heritage feature.

(2) Despite subsection (1), a traditional heritage feature, other than a culturally modified tree, may be altered or removed after information-sharing or consultation with the applicable First Nation determines that:

a) the traditional heritage feature is not of continuing importance to the First Nation; or

b) the alteration or removal is required for road access, other infrastructure, or to address a safety concern.

(3) Where information-sharing or consultation under subsection (2) with the applicable First Nation identifies a material adverse impact to a traditional heritage feature that is of continuing importance to the applicable First Nation and there is no practicable alternative, identify specific measures to address or seek to accommodate the material adverse impact.

5. Objectives for culturally modified trees
(1) In areas proposed for road construction and harvesting, identify and protect culturally modified trees and include a management zone of sufficient size to protect the integrity of the culturally modified tree.

(2) Despite subsection (1), a culturally modified tree may be altered or harvested after information-sharing or consultation with the applicable First Nation determines that:

a) the culturally modified tree is not of continuing importance to the First Nation; or

b) alteration or harvesting is required for road access, other infrastructure, or to address a safety concern; or

c) protection of the culturally modified trees in the cutblock would make harvesting the cutblock economically unviable.

(3) Where information-sharing or consultation under subsection (2) with the applicable First Nation identifies a material adverse impact to a culturally modified tree that is of continuing importance to the applicable First Nation and there is no practicable alternative, identify specific measures to address or seek to accommodate the material adverse impact.

(4) Reserve culturally modified tree areas, at the landscape and stand level, where practicable, after information-sharing or consultation with the applicable First Nation.

6. Objectives for monumental cedar

(1) Maintain a sufficient volume and quality of monumental cedar to support the applicable First Nation's present and future cultural use of monumental cedar, following information-sharing or consultation with the applicable First Nation, and to the extent practicable.

(2) For the purposes of subsection (1) in areas where road construction and timber harvesting are proposed, identify and reserve monumental cedars where information sharing with the applicable First Nation has indicated the monumental cedar may be suitable for cultural use.

(3) Despite subsection (1) and (2), a monumental cedar may be harvested, after information-sharing or consultation with the applicable First Nation determines that:

a) the monumental cedar is not suitable or required for a cultural use; or

b) the monumental cedar will be provided to the applicable First Nation; or

c) harvesting the monumental cedar is required for road access, other infrastructure, or to address a safety concern; or

d) reserving the monumental cedar in the cutblock would make harvesting the cutblock economically unviable; or

e) a sufficient volume and quality of monumental cedar for the applicable First Nation, to support the First Nation's cultural use of monumental cedar, has been identified and reserved.

(4) Where information-sharing or consultation under subsection (3) with the applicable First Nation identifies a material adverse impact to a monumental cedar that is identified as being suitable for cultural use by the applicable First Nation, and there is no practicable alternative, identify specific measures to address or seek to accommodate the material adverse impact.

7. Objectives for stand level retention of Western red and Yellow cedar

(1) Maintain a sufficient volume and quality of Western red cedar and Yellow cedar to support the applicable First Nation's cultural use of Western red cedar and Yellow cedar, to the extent practicable.

(2) Within a cutblock where a partial cut silviculture system is used, design dispersed stand retention so that the first 15% of the total retained basal area maintains mature and old Western red cedar and Yellow cedar representative of the pre-harvest stand.

APPENDIX 3. LIST OF FOREST STEWARDSHIP PLANS REVIEWED FOR THIS ANALYSIS

Note: A "List of Acronyms" is provided at the beginning of this report.

Table A1. *List of all Forest Stewardship Plans reviewed for this paper*

Region	District	FSP #	FSP Proponent	Type of Licence	Licence Number
Coast	DCK	101	Cattermole Timber & Seabird Island First Nation	FL & NRFL	multiple
Coast	DCK	65	District of Mission	TFL	26
Coast	DCK	91	Lakeside Pacific Forest Products	FL	A19207
Coast	DCK	153	Probyn Log Ltd.	FL	A75657
Coast	DCK	72	Scott Paper Ltd.	TFL	43
Coast	DCK	102	Teal Cedar Products Ltd.	FL & TL	multiple
Coast	DCK	135	Tolsons Enterprises Ltd.	TL	T0733
Coast	DCR	145	Northwest Hardwoods	FL	A49532
Coast	DCR	93	TimberWest TFL	TFL, TLs, & FLs	multiple
Coast	DCR	144	TimberWest Forest Corp.	FLs & TFL	multiple
Coast	DNC	44	Metlakatla Development Corporation	FL	A77961
Coast	DNC	148	Sonora Logging Ltd.	FLs	A16837 & A16838
Coast	DNI	48	BC Timber Sales – Seaward/Tlasta	BCTS Seaward	—
Coast	DNI	68	Heiltsuk Coastal Forest Products Ltd. (Bella Bella Asset Holdings Ltd.)	multiple (NRFL, Forestry Licence to Cut, FL)	A62710, A7950o, A67048
Coast	DNI	87	International Forest Products & SWC Holdings Ltd.	FLs	multiple
Coast	DNI	177	Mill & Timber Products Ltd. & Gwa'Nak Resources Ltd.	FLs & Minor Salvage Permits	multiple
Coast	DNI	86	Northwest Hardwoods & Weyerhauser	FL	A49542
Coast	DNI	172	Richmond Plywood Corporation Ltd.	FL	A19243
Coast	DNI & DCR	62	International Forest Products	FLs	multiple
Coast	DSC	190	BC Timber Sales – Strait of Georgia	Sunshine Coast	—
Coast	DSC	20	International Forest Products	FLs & TLs	multiple
Coast	DSC	143	Scott Paper Ltd.	TFL	43
Coast	DSC	94	Sechelt Community Projects Inc.	CFA	K3F
Coast	DSC & DSQ	55	Terminal Forest Products Ltd.	FL	multiple
Coast	DSI	179	BC Timber Sales – Chinook	Squamish Forest District	—
Coast	DSI	35	BC Timber Sales – Strait of Georgia	West Coast FSP	—
Coast	DSI	136	BC Timber Sales – Strait of Georgia	East and Southwest Coast FSP	—
Coast	DSI	57	Cowichan Lake Community Forest Co-operative Ltd. & Teal Jones Group	FL	multiple

Region	District	FSP #	FSP Proponent	Type of Licence	Licence Number
Coast	DSI	61	Galloway Lumber Company	FL	A19042
Coast	DSI	129	Iisaak Forest Resource Ltd.	TLs & TFL	multiple
Coast	DSI	12	International Forest Products; Coulson Forest Products; Equis Forest Products; Echa-Peh; Weyerhauser; Steeves; Western Forest Products	multiple (FL, TFL)	multiple
Coast	DSI	167	Squamish Mills Ltd. & Halray Logging Ltd.	FL & TSL	multiple
Coast	DSI	127	Ts'aa7ukw Forestry Ltd.	TSL	A71020
Coast	DSI	202	UFN Holdings Co.		A78075
Coast	DSQ, DSC, DCR, DQC, DSI, & DNI	69	Western Forest Products	TFL	TFL39
Northern Interior	DJA	142	BC Timber Sales – Stuart-Nechako	BCTS Fort St. James	—
Northern Interior	DJA	15	Brave Holdings	FL	A75670
Northern Interior	DJA	2	Canyon Tree Farms	Salvage NRFL	A75671
Northern Interior	DJA	16	K & D Logging	FL	A78069
Northern Interior	DJA	73	Stuart Lake Lumber Co.	FL	A18169
Northern Interior	DJA	126	Tanizul Timber Ltd.	TFL	42
Northern Interior	DJA	14	Yekooche First Nation & Za Mari Economic Development Corporation	FL	A75069 & A73937
Northern Interior	DKM	19	Kitselas Forest Products	NRFL & Forestry Licence to Cut	A73377 & A77426
Northern Interior	DMK	38	Abitibi Consolidated	FL	A15385
Northern Interior	DND	42	Babine Forest Products	FL	multiple
Northern Interior	DND	71	Canadian Forest Products & Moricetown Band Council	TSA, TFL	Midcoast TSA & TFL 39
Northern Interior	DND	123	Cheslatta Carrier Nation	Community Forest Pilot Agreement	K1M
Northern Interior	DND	78	Fraser Lake Sawmills	FL	A16826
Northern Interior	DND	46	Houston Forest Products	FL	A16827
Northern Interior	DND	99	Lakes Timber Health & Salvage Ltd.	CSL	K1Y

Region	District	FSP #	FSP Proponent	Type of Licence	Licence Number
Northern Interior	DPC		Canadian Forest Products Ltd. & Dunne-Za Ventures LP	TFL	TFL 48
Northern Interior	DPG	47	City of Prince George	Probationary Community Forest Agreement	K2B
Northern Interior	DPG	25	Dunkley Lumber Ltd.	FL	A57544
Northern Interior	DPG	58	Dunkley Lumber Ltd.	TFL	53
Northern Interior	DPG	170	Dunkley Lumber Ltd.	FL	A18160
Northern Interior	DPG	169	Gateway Forest Products	NRFL	A62425
Northern Interior	DPG	24	BC Timber Sales – Prince George	FSP24	—
Northern Interior	DPG, DJA, DVA	10	Apollo Forest Products; Lakel & Mills; L&M Lumber; Ta Da Chun Timber; Winton Global Lumber	FL	multiple
Northern Interior	DVA	201	BC Timber Sales – Stuart-Nechako	BCTS Vanderhoof Forest District	—
Northern Interior	DVA	92	Canadian Forest Products & Stellako Custom Wood	FL	multiple
Southern Interior	DAB	27	Atco Lumber Ltd.	FL	A20193 & A20218
Southern Interior	DAB	31	BC Timber Sales – Kootenay	BCTS Arrow Boundary Forest District	—
Southern Interior	DAB	26	Kalesnikoff Lumber Co.	FL	A20194 & A30172
Southern Interior	DAB	29	Pope & Talbot Ltd.	TFL & FL	8 & A18969
Southern Interior	DAB	30	Pope & Talbot Ltd.	TFL	23
Southern Interior	DAB	32	Weyerhauser	FLs & TFL	A18674, A18970 & TFL 35
Southern Interior	DAB, DOS	34	Tolko Industries, Okanagan Regional Woodlands, Selkirk Timber, Bell Pole Canada	TFL, TLs, & FLs	multiple
Southern Interior	DCC & DCH		BC Timber Sales – Cariboo-Chilcotin	—	—
Southern Interior	DCC & DCH	100	Pioneer Family Timber	NRFLs	multiple
Southern Interior	DCC & DCH	178	Sigurdson Bros. Logging Company	NRFLs	multiple

Region	District	FSP #	FSP Proponent	Type of Licence	Licence Number
Southern Interior	DCH, DQU, DMH, & DCC	112	Tolko Industries Ltd. & Cariboo Woodlands	FLs	multiple
Southern Interior	DCO	1	Bell Pole Canada	FL	A18992
Southern Interior	DCO	81	Bell Pole Canada	FL	A17799
Southern Interior	DCO	82	Downie Street Sawmills	FL	A31102
Southern Interior	DCO	74	Louisiana–Pacific Canada Ltd.	FL	FL A17645 & TO 541
Southern Interior	DCO	43	Revelstoke Community Forest Corporation	TFL	56
Southern Interior	DCO	80	Wood River Forest Inc.	FL	A17644
Southern Interior	DCO & DOS	54	BC Timber Sales – Okanagan-Columbia	Okanagan-Columbia FSP	—
Southern Interior	DCS	108	BC Timber Sales – Kamloops	BCTS Lillooet	—
Southern Interior	DCS	109	BC Timber Sales – Kamloops	BCTS Merritt TSA	—
Southern Interior	DHW	163	BC Timber Sales – Prince George	Robson Valley TSA	—
Southern Interior	DHW	166	Bell Pole Canada	FL	18687
Southern Interior	DHW	141	Gilbert Smith Forest Products	FLs & TL	multiple
Southern Interior	DHW	115	Hauer Bros. Lumber Ltd.	FL	A17800
Southern Interior	DHW	137	McBride Forest Industries Ltd.	FL	A15429
Southern Interior	DHW	119	Valemount Forest Products	FL	A15430
Southern Interior	DHW	67	Wells Gray Community Forest Corporation	CFA	K2A
Southern Interior	DHW & DKA	117	Canadian Forest Products	FL & TFL	multiple
Southern Interior	DHW & DKA	133	International Forest Products Ltd.	FL & NRFL	multiple
Southern Interior	DKA	116	Tolko Industries	FL	A18686

Region	District	FSP #	FSP Proponent	Type of Licence	Licence Number
Southern Interior	DKL	8	J.H. Huscroft Ltd.	FL	A20213
Southern Interior	DMH	182	West Fraser Mills Ltd.	FLs	A20001 & A20002
Southern Interior	DOS	147	Bell Pole Canada	FL	A18666
Southern Interior	DOS	146	Comar Holdings Ltd.	TL	676
Southern Interior	DOS	70	Federated Cooperatives Ltd.	FL, TFL, NRFL, Timber Licence	multiple
Southern Interior	DOS	52	Gorman & Monte Lake Forest Products Ltd.	FL	multiple
Southern Interior	DOS	168	L.A. Stein Forestry Consulting	NRFL	A75423
Southern Interior	DOS	171	Louisiana-Pacific Canada Ltd.	FL	A18669
Southern Interior	DOS	118	Pristine Log Homes & Manufacturing Ltd. & Gudeit Bros. Contracting Ltd.	NRFLs	multiple
Southern Interior	DOS	40	Regional District of North Okanagan	CSL	K1T
Southern Interior	DOS	5	Yucwmenlúcwu ("Caretakers of the Land")	FL	A80628
Southern Interior	DQU		BC Timber Sales – Cariboo-Chilcotin	—	—
Southern Interior	DQU	152	C & C Wood Products	NRFLs	multiple
Southern Interior	DQU	156	Canadian Forest Products & Kluskus Management Holdings & Red Bluff Development	FLs	multiple
Southern Interior	DQU	22	West Fraser Mills Ltd.	TFL	5
Southern Interior	DQU	59	West Fraser Mills Ltd.	TFL	52
Southern Interior	DQU	132	West Fraser Mills Ltd.	FLs	multiple
Southern Interior	DRM	41	BC Timber Sales – Kootenay	Rocky Mountain FSP	—
Southern Interior	DRM	17	Canadian Forest Products	FL	A18979
Southern Interior	DRM	53	Tembec & Ktunaxa Kinbasket Development Corporation	TFL & FLs	multiple

Table A2. *List of First Nations owned or affiliated FSP holders included in the sample. Shading indicates that the FSP is exclusively held by a First Nation or First Nations-owned company.*

FSP Holder	Description
Iisaak Forest Resources Ltd.	Joint venture between central Nuu-chah-nulth First Nations and Weyerhaeuser Ltd.
Ts'aa7ukw Forestry Limited	Joint venture between Ditidaht First Nation and Hayes Forest Services
Yekooche First Nation and Za Mari Economic Development Corporation	Za Mari Economic Development Corp. is a joint venture between Yekooche First Nation and a local logging contractor
Tanizul Timber	Owned by the Tl'azt'en Nation
Kitselas Forest Products	Owned by the Kitselas First Nation
Cheslatta Carrier Nation	FSP held by the Cheslatta Carrier Nation
Moricetown Band Council & Canadian Forest Products	FSP jointly held by the Moricetown Band Council & Canadian Forest Products
Dunne-Za Ventures & Canadian Forest Products	FSP jointly held by the West Moberley First Nation & Canadian Forest Products
Apollo Forest Products; Lakel & Mills; L&M Lumber; Ta Da Chun Timber; Winton Global Lumber	Ta Da Chun Timber is a joint venture between Nak'azdli First Nation & Apollo Forest Products
Canadian Forest Products & Stellako Custom Wood	Stellako Custom Wood is owned by the Stellat'en First Nation
Yucwmenlúcwu	Owned by the Splatsin First Nation
Canadian Forest Products & Kluskus Management Holdings & Red Bluff Development	Kluskus Management Holdings is owned by the Kluskus First Nation
Seabird Island First Nation & Cattermole Timber	FSP jointly held by the Seabird Island First Nation & Cattermole Timber
Metlakatla Development Corporation	Owned by the Tsimshian Nation
Heiltsuk Coastal Forest Products Ltd.	Owned by the Heiltsuk Nation
Mill & Timber Products Ltd. & Gwa'Nak Resources Ltd.	Gwa'Nak Resources Ltd. is a joint venture between the Gwa'Sala-'Nakwaxda'xw First Nation and Mill & Timber Products Ltd.
International Forest Products; Coulson Forest Products; Equis Forest Products; E-cha-Peh Forest Resources Ltd.; Weyerhaeuser; Steeves; Western Forest Products	E-cha-peh Forest Resources Ltd. is a joint venture between the Toquaht First Nation and Coulson Forest Products
Tembec & Ktunaxa Kinbasket Development Corporation	The Ktunaxa Kinbasket Development Corporation is owned by: St. Mary's Band, ?akisq'nuk Band, Tobacco Plains Band, Lower Kootenay Band and Shuswap Band.
UFN Holdings Co.	Owned by the Ucluelet First Nation
Total First Nations controlled or affiliated FSPs	**19**

The FREP Mission:
To be a world leader in resource stewardship monitoring and effectiveness evaluations: providing the science-based information needed for decision-making and continuous improvement of British Columbia's forest and range practices, policies and legislation.

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